METAPHYSICAL ESSAYS:

CONTAINING

THE PRINCIPLES

AND

FUNDAMENTAL OBJECTS

OF

THAT SCIENCE.

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LONDON:

PRINTED BY T. BENSLEY, BOLT COURT, FLEET STREET;

FOR

PAYNE AND MACKINLAY, IN THE STRAND.

1809.

PREFACE.

UNDER the name of Metaphyſics are comprehended inquiries into the nature of objects impervious to the ſenſes; ſuch as that of the thinking principle within us, and the exiſtence and properties of the Author of the univerſe. Such inquiries have at all periods in which human ſocieties, by attaining a certain degree of civilization, afforded ſufficient leiſure, invited the notice of men of ſuperior underſtanding, though the remoteneſs of theſe objects from ſenſe rendered any determination concerning them not a little difficult. Hence diſagreeing opinions naturally aroſe, and various ſects were formed. The hiſtory and various fortunes of theſe I ſhall not ſtop to relate, as they may be found in ſeveral well-known treatiſes. It is ſufficient to obſerve here, that as each ſect maintained its

 peculiar

peculiar tenets with great obſtinacy and ardour, Metaphyſics ſoon became the moſt contentious of all ſciences; whence it came to paſs, that though evidently it be the moſt important of all others, as it relates to man, not only in his preſent but in his future ſtate, announcing the truths it moſt concerns him to be acquainted with, yet preſenting, particularly in the latter ages, little elſe than the incoherent jargon of the ſchools, it ſtill, without attention to the numerous improvements it received during the courſe of the laſt century from the luminous reſearches of Locke, Berkeley, Merian, Condillac, and profeſſor Dugald Stuart, continues to be held by the vulgar herd of mankind, to be ſcarce any thing more than refined nonſenſe.

Upon a general ſurvey of the whole, it will be found, that many, and indeed the moſt futile queſtions and the moſt abſurd concluſions with which this ſcience was polluted and diſgraced, originated in the vague, obſcure,

ſcure, and ambiguous terms with which it abounded: theſe being partly baniſhed, and the ſignification of ſuch as it neceſſarily employs being duly explained, Metaphyſics aſſumed a new appearance; and being immediately freed from the vain unintelligible ſubtleties of the ſchools, it was enabled to unravel the more refined ſophiſtry by which ſome oblique wits attempted to impoſe atheiſm, pantheiſm, fataliſm, and materialiſm, and finally univerſal ſcepticiſm, on the credulity of mankind.

The importance of this ſcience is beſt diſcerned by taking a ſummary view of the evils reſulting from falſe notions of its objects; and among theſe objects I conſider ſettling the true import of words as one peculiarly deſerving the greateſt attention. Now ſo ſtrangely have theſe been miſunderſtood, that abſtract terms were ſuppoſed to have real correſponding archetypes: *Fortune* was thought to denote a goddeſs, *deſtiny* three goddeſſes; *ſpace*

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has by ſome been held to be a real, ſelf-exiſtent Being, by others a modification of the Supreme Being (though this Being was acknowledged to be ſpiritual and unextended;) and by others ſomething intermediate between matter and ſpirit. *Motion* was defined to be the *act* of a being tending from capacity to actuality. Others, ſtill more abſurd, have rejected definitions, even of the moſt complicated objects, altogether; thus rendering all reaſoning on controverted ſubjects abſolutely impoſſible.

With reſpect to the human ſoul, ſome have held it to be a portion of the Divine Being, others a bundle of fleeting perceptions without any percipient, and others a thinking machine.

But the errors into which mankind fell reſpecting the nature and attributes of the Divine Being were by far the moſt deſtructive of human happineſs, for, to ſay nothing of pantheiſts and Epicureans, moſt nations aſcribed to their divinities paſſions ſimilar to their

their own, particularly the moſt malevolent, anger and revenge. And as Noah ſacrificed animals after the flood, by way of thankſgiving, for having been ſaved from it, his miſguided poſterity ſuppoſed ſacrifices to have an inherent power of appeaſing the anger of the Divinity, and ſo much the greater, as the victim ſacrificed was of greater value; thus the human ſpecies being deemed the moſt excellent, human ſacrifices were held to be the moſt efficacious: in conſequence of this fatal deluſion, all nations were guilty of this horrid impiety;* and by ſome it was carried to an exceſs ſcarcely credible. It is ſaid, that the Mexicans ſacrificed 2500 at leaſt, yearly.† Nor was the opinion, wantonly formed, of the exiſtence of evil ſpirits let looſe on mankind, much leſs pernicious; for on this the imaginary ſcience of magick was founded, by

* See Magee on Atonement, p. 90; and Bryant, who publiſhed an expreſs treatiſe on this ſubject.

† 3 Robinſon, 156. 314.

means

means of which it was fuppofed communication might be held with thefe fpirits; and to their agency, under the direction of adepts in this fcience, numerous diforders were afcribed. In confequence of this perfuafion, its exercife was held criminal; but the means of detecting this criminality were as infufficient as ridiculous; feveral treatifes on this fubject are ftill extant; its belief was received in all Chriftian countries, and continued even after the reformation: it is faid that 3000 perfons fuffered death as forcerers in France in one year. Many underwent the fame fate in proteftant Geneva, many in Germany and England, and feveral in New England.*

Thus we fee that even the pureft religion is unable to eradicate fuperftition; the experience of ages demonftrates, that this can be effected only by philofophy.

In the following effays I have endeavoured to comprehend the moft important truths

* See Cotton Mather's Hiftory of New England.

contained

contained in this ſcience, with all poſſible conciſeneſs. My aim in the firſt is to point out the true ſignification of terms that moſt frequently occur in treating metaphyſical ſubjects, and explain the nature of objects indicated by ſome others. The nature of two of theſe was ſo far miſtaken, and appeared ſo intricate, that I have treated of them more at large in diſtinct diſſertations.

In the ſecond I have endeavoured to do away ſome falſe opinions reſpecting the human ſoul, and particularly its materiality; ſhewing, that no ſuch ſubſtance as matter is deſcribed to be, either exiſts or can exiſt. Of the unpopularity of this opinion I am well aware; however I am fully convinced of its truth; nay, that it is a moſt important truth; and were it even falſe, it can in no caſe be prejudicial to ſociety, as ſome of its opponents, who fancied they underſtood it, have ignorantly ſuppoſed. I have briefly ſtated the anſwers given by its great author to the objections

jections made to it in his time, and have obviated the most plausible arguments by which it has of late been assailed. After which I succinctly treat of sensations, ideas, consciousness, the powers and faculties of the human mind, and explain in what its various abilities and disabilities consist, or at least the current notions annexed to the terms by which they are described.

The existence of the Supreme Being and his attributes, as far as they are discoverable by human reason, form the subject of the third essay. Of the former I have given a new demonstration *a priori*; and of the latter I have ventured to expose some opinions peculiar to myself, but by which many objections, otherwise insoluble, are removed.

I have every where preferred the synthetic to the analytic method, as being most consistent with brevity. The former has been successfully treated by Locke, Condillac, and professor Dugald Stuart.

CONTENTS.

ESSAY I.

CHAP. I.

CHAP. II.

IX.

ESSAY II.

CHAP. I.

CHAP. II.

CHAP. III.

II.



METAPHYSICKS.

METAPHYSICKS comprehend three objects of inquiry: first, The true signification of words used in treating of intellectual subjects; secondly, A true notion of the human mind, and of its principal phenomena; thirdly, Proper notions of the Supreme Being, and his most important attributes.

ESSAY I.

CHAPTER I.

PRELIMINARY DEFINITIONS OF TERMS THAT MOST FREQUENTLY OCCUR IN THIS TREATISE.

Sensation denotes whatever we perceive by our senses.

Idea denotes a faint copy of a sensation absent, but recollected.

Notion signifies the knowledge we have of objects, to which we assign a name, or denote

by any ſign, (ſuch as arithmetical figures, or algebraic characters); but of which, as they are not perceived by the ſenſes, no idea can be formed.

Thing is a word uſed, firſt, to ſignify whatever is not a *perſon*; or, ſecondly, any object whatſoever.

Notions are either ſimple, complex, complicative, ſignificative, or relative.

Simple notions are thoſe which we have of the characters, qualities, modes, properties, actions, or relations, ſingly conſidered, of any ſubject to which they belong, or of which they make a part; and hence they are ſaid to be *abſtracted*, and the knowledge we have of them is called an *abſtract notion*.

Such are the notions we have of the faculties, ſtates, or modifications of the human mind, or at leaſt of the ſignification of the words that denote them.

Such alſo is the knowledge we have of the ſignification of general words, or the things ſignified by them, whether thoſe words be generic or ſpecific; as animal and man, or numerals; though moſt commonly theſe words are underſtood not by a knowledge of their

abſtract

abſtract ſignification, but by obſerving to what ſorts of things they are uſually applied, or how formed; and hence their definition is often difficult.

Complex notions are thoſe which we have of real things which poſſeſs many properties, and of which we can have no idea; ſuch as *God*, to whom we aſcribe many properties, and the *human ſoul*, to which various properties and ſuſceptibilities belong.

Complicative notions are thoſe which we annex to various words, indicating numerous objects bundled up together, as bearing ſome general relation to each other; ſuch as numerous actions, or diſpoſitions to action, conſidered in their various circumſtances as objects of approbation, or diſapprobation; for inſtance, our notions of *virtue*, *vice*, *impropriety*, *indecency*, *right*, *wrong*, &c.

Or ſuch as we annex to words indicating the tranſactions that take place in the intercourſe of men with each other, as *negociations*, *bargains*, *treaties*, *war*, *peace*, &c.

Or to thoſe that mark the regulations of ſocieties, as *laws* and their *ſanctions*.

Or to words expreſſive of the combinations

of men for particular views, as *ſociety*, *government*, *parliament*, *conſpiracy*, &c.

Or of reciprocal relations, as ſovereign and ſubject, father and ſon, &c.

Or to words that denote a complication of different perceptions, ſtates, or ſentiments of the mind, that bear a relation to each other; ſuch as *deſire*, which indicates, firſt, the perception or notion of an agreeable object; ſecondly, an uneaſineſs to attain it; and, thirdly, an act of the will determining (if it be attainable) to attain it. So *hope* indicates deſire, accompanied with doubt, &c.

Significative notions are thoſe we have of the ſignification of words that denote other words; as nouns, pronouns, &c. or of ſigns which denote words, or various particulars concerning them; as grammatical ſigns, or of arithmetical ſigns, which denote the gradation of numbers; or of algebraic ſigns, which denote numeral relations and operations.

Relative notions are thoſe which we have of things not directly known, but ſolely by relation to ſomething elſe: ſo, though we may not exactly know the ſquare roots of

400

400 and 441, without extracting them, yet we know so much of both, by reason of the relations they bear to those numbers, that the root of the latter must be higher than that of the former.

Thus we see that *simple* notions are founded on abstraction, *complex* notions are derived from ratiocination, *complicative* from concurring relations, and *significative* on the convenience of distinction or notation.

Complicative notions are not easily defined, though easily understood in particular cases; because a definition must set forth the character common to them in all cases, which is not easily assigned, whereas, their sense in particular cases is easily understood; thus *time*, *place*, *space*, &c. are not easily defined, but the *space of a mile*; *in the place where Babylon stood*; *in an hour's time*, and such like phrases, are easily understood.

CHAPTER II.

SECT. I.

OF BEING, EXISTENCE, ESSENCE, POSSIBILITY.

1. *Being* is either a participle of the verb *to be*, or a ſubſtantive, and then it denotes any thing real and poſitive, actually exiſting, or capable of exiſtence; but in this laſt caſe, the word poſſible is annexed to it, unleſs the ſenſe requires that it ſhould be ſo underſtood without this addition.

2. *Exiſtence* denotes the actual poſſeſſion of any properties; a being that poſſeſſes no properties is a mere *nothing*, and whatever poſſeſſes a property exiſts.

3. *Eſſence* denotes that conſtitution that makes or determines a thing to be what it is, or that aſſemblage of properties which diſtinguiſhes it from all other beings, and entitles it to a diſtinct name.

4. Thus it denotes one or other of two things, namely, a peculiar conſtitution, or a peculiar aſſemblage of properties. The peculiar conſtitution is called the *real eſſence*, but

as

as this is for the moſt part unknown, the aſſemblage of peculiar and inſeparable properties is ſubſtituted in its ſtead, as it equally anſwers every purpoſe of deſignation and diſcrimination, and is called the *nominal* eſſence.

5. Thus the real eſſence of water conſiſts in the union of certain proportions of oxygen and hydrogen; but its nominal eſſence conſiſts in the aggregate of all its properties.

6. The eſſence of complicative notions conſiſts in thoſe characters that form their peculiar diſtinction, and are therefore marked by diſtinct names; thus homicide, committed through malice, is diſtinguiſhed from that committed through ſudden paſſion: the firſt is called *murder*, and the other *manſlaughter*, and thoſe diſtinct characters form their eſſence. As theſe notions are combinations formed by men themſelves, their real and nominal eſſence is the ſame.—Locke, B. iii. C. v. ſec. 14.

7. *Poſſibility* denotes the compatibility of the conſtituent principles of any thing with each other, or of the properties, modifications, or attributes of a thing with each other, and with that thing to which they

 belong,

belong, or are attributed; and alſo the exiſtence of a cauſe able to produce the thing which is ſaid to be poſſible. Poſſibility is an attribute or denomination, and not a property.

8. Hence poſſibility expreſſes two notions: firſt, the compatibility of the principles, properties, &c. and this is called the internal, intrinſic, metaphyſical, abſolute, and abſtract poſſibility, as it is conſidered abſtractedly from the cauſe or cauſes of its production; and, ſecondly, the exiſtence of a cauſe enabled to produce it. The ſecond notion is called the extrinſic poſſibility. We may remark, that principles, properties, attributes, &c. are judged to be compatible when their incompatibility is not diſcerned. Thus a circle is deemed to be poſſible, independently of any experience, becauſe no incompatibility can be diſcovered betwixt a curved line encloſing a ſpace, and ſenſible equidiſtance of all its parts from a given point within that ſpace.

9. The ſecond notion relates to the power of a productive cauſe; and a thing is ſaid to be *impoſſible*, firſt, when it can be effected

either

either by no power whatſoever, or, ſecondly, when it is inconſiſtent with the experienced laws of phyſical nature; and, thirdly, when its exiſtence is obſtructed by powerful moral cauſes. Thus three kinds of poſſibility and impoſſibility are diſtinguiſhed—the metaphyſical, the phyſical, and the moral.

10. Firſt, a thing is ſaid to be *metaphyſically poſſible*, when it is ſuch as may be produced or created by the Supreme Being, to whom all things are poſſible which do not involve a contradiction either in themſelves, or to his attributes. Whatever implies a contradiction to either is *metaphyſically impoſſible*. Thus a *ſquare circle* implying a contradiction, cannot be formed even by Omnipotence. So God cannot create a being with a deſign of rendering him permanently miſerable, ſuch a deſign being inconſiſtent with his infinite goodneſs.

11. Secondly, an event is *phyſically poſſible*, when its exiſtence is not inconſiſtent with the known laws of phyſical nature in the *given circumſtances*, though perhaps proceeding from unknown laws. The moſt general laws of nature are not abſolutely general, for they do

not extend to all bodies whatſoever, whether organic or inorganic. Thus iron will aſcend to a magnet, though ſuch aſcent will be contrary to the laws of nature when other bodies are held under it. Thus bodies electrified attract many other light bodies. Thus the heads of polypi are reproducible, &c. though thoſe of moſt other animals are not, &c. &c. And ſo we find exceptions in particular caſes to moſt of the previouſly known laws of nature.

12. But an event is *phyſically impoſſible* when its exiſtence in *given circumſtances* is inconſiſtent with thoſe reſults which uniform and univerſal experience has taught us to expect in ſimilar circumſtances, though poſſible in certain other different circumſtances. Thus ſuch experience teaches us, that pure water will not boil at the temperature of 100 degrees, though *in vacuo* it will boil at much inferior degrees; this circumſtance being different from that which uſually occurs, namely, the preſſure of the ſuperincumbent atmoſphere.

13. An event is ſaid to be *morally* poſſible when its exiſtence is not inconſiſtent with

those motives of action by which mankind are generally governed, and not opposed by causes of equal or superior efficacy.

14. And an event is *morally impossible* when, though its existence be physically possible, yet by reason of its opposition to the opinions, habits, manners, instincts, prejudices, knowledge, or ignorance, or political state of mankind, it *seldom* or never happens.

15. Hence *moral possibility* and *impossibility* are capable of degrees, but metaphysical possibility and impossibility are not.

16. Physical possibility is also capable of degrees, for an effect may be produced with more or less difficulty.

17. But physical impossibility is incapable of any degrees, since the fact that involves it is inconsistent with all the laws of physical nature. Hence all miracles are equal, each equally requiring the intervention of supernatural power, to which the production of any such fact is equally easy.

18. The possibility of *physical or moral facts* is so much the smaller, as the causes that oppose their existence are more powerful or numerous, and *vice versa*.

19. Where

19. Where many events are *apparently* equally poſſible, and one of them muſt take place, the previous aſſignment of any one of them renders it leſs poſſible than any other unaſſigned event; for the exiſtence of the aſſigned event involves alſo the relation of conformity to the aſſignment, which aſſignment is a fact quite foreign to it; conſequently, it requires the exiſtence of two poſſibilities, namely, that of the event abſtractedly or mathematically conſidered, and that of conformity with the aſſignment; whereas, the unaſſigned poſſible events are ſingle and unſhackled by any relation foreign to them.

20. Hence, the more numerous the unaſſigned poſſible events are, the nearer the aſſigned event approaches to a phyſical impoſſibility.

21. Thus the turning up of any of the ſix faces of a die, being *ſuppoſed* equally poſſible with the turning up of any other of thoſe faces, and on caſting the die, one of them muſt be turned up; if I name one of them, as that which muſt be turned up, it becomes leſs poſſible than the turning up of any other.

22. So alſo, and for the ſame reaſon, poſſibilities that involve the relations of *order* or *ſimilarity*, are leſs poſſible than any other, and in proportion as thoſe relations are more numerous. Thus the poſſibility of throwing an ace on one die, a duce on another, and a tray on a third, is ſmaller than the poſſibility of irregular appearances.

23. So the poſſibility of throwing three aces together with three dice, or three aces ſucceſſively on the ſame die, is ſmaller than the poſſibility of throwing two aces, &c.

24. Yet I have ſaid, *when the poſſibilities are apparently equal*, which equality in reality is never found, for the phyſical cauſes that produce any event are incapable of producing any other than that which takes place; but as theſe cauſes are unknown, every event that can by the laws of motion be produced, is judged as poſſible as any other: theſe poſſibilities depending on unknown cauſes, are called *chances*. All poſſibilities are eternal, and neceſſary in this ſenſe,—that they are eternally known to the Divine Mind, and neceſſarily ſuch as they are known to be.

SECT. II.

OF SUBSTANCE, NATURE, SUBSISTENCE, AND PERSONALITY.

25. *Subſtance* in the metaphyſical ſenſe denotes the ſubject of various ſtates, attributes, powers, or modifications, its eſſence or identity remaining the ſame, and to which various properties belong or are aſcribed, though its *eſſence* be abſolutely unknown. It is a being eſſentially perceptive.

26. The knowledge we have of it is derived from our conſciouſneſs that our mind, ſoul, or thinking principle, is one and the ſame when we feel pleaſure and when we feel pain; when we grieve and when we rejoice; when we ſee and when we do not ſee; when we deſire, will, or reſolve; and when we judge, &c. The ſubject of theſe different ſtates of our mind, whether active or paſſive, we call its *ſubſtance*.

27. The *exiſtence* of only three ſorts of ſubſtances is known to us; that of our own minds by conſciouſneſs, that of other men by analogy, that of God by ratiocination and analogy, and that of angels by revelation.

The

The existence of that substance, which is usually ascribed to the fictitious external objects of our sensations, is not only destitute of any solid proof, but absolutely impossible, as will hereafter be proved; but, in a physical sense, that is, in common language, certain aggregates of sensations, or sensible qualities comprehended under the same name, are called substances.

28. The various significations of the word *nature* I have explained in my Essay on Logic, Part. ii. Chap. v. sec. 4.

29. *To subsist*, in the English common language, and *subsister* in the French, signifies to remain, or still continue to exist. And *subsistence* in both languages signifies the nourishment necessary to support animal life.

Subsistere in classical Latin signifies to abide, to stand still, to withstand; and *metaphorically* to bear, or support. Thus Cicero says, he could not *subsistere sumptui*,* he could not bear or support the expense. *Subsistentia* is a word unknown to the classic writers.

30. In theological language, *subsistence* has a very different signification; if in truth it

* See Fabre, Thesaurus Linguæ Latinæ. *Sisto.*

can,

can be ſaid to have any at all: but to underſtand any part of this meaning, we muſt explain what theologians mean by the word *nature*.

31. *Nature*, φυσις, in the metaphyſical ſenſe, denotes the ſubſtance, ȣσια, or eſſence of any thing, abſtractedly conſidered.*

32. *Subſiſtence* then, in the theological ſenſe, denotes that by which a nature or ſubſtance is terminated, and completed; in which nature ſtops and proceeds no further; as figure terminates and circumſcribes a body.†

33. Now this definition is evidently unintelligible; for nature or ſubſtance, abſtractedly conſidered, are incapable of termination; not only becauſe ſuch termination is unintelligible, but becauſe ſuch abſtractions exiſt only in the mind.

34. And let it be not pretended, that ſuch a termination may nevertheleſs exiſt, though unintelligible; as eſſences, though unknown, nevertheleſs exiſt; for the exiſtence of eſſences is known by their effects, whereas the exiſtence of ſubſiſtences is fictitious. Hence Du-

* Petav. Dog. Theolog. Vol. III. 62.

† Du Hamel, Philoſoph. adufum Ducis Burgundiæ, p. 294. 297.

hamel

-hamel owns that the diſtinction of ſubſiſtence from ſubſtance is only known to us through the myſteries of the Trinity and incarnation; that is, *ignotum per ignotius*. Tournely alſo allows the different ſignifications of ſubſiſtence to be theological fictions, * and ſcarcely intelligible.†

35. Neither does the compariſon with figure ſerve to illuſtrate this definition, for every thing corporeal muſt have a termination, otherwiſe its extenſion would in every ſenſe be infinite, which is confeſſedly impoſſible; but abſtractions, and ſpiritual ſubſtances, are incapable of any intelligible termination.

36. Senſible of the inſufficiency of this definition, the ſcholaſticks deviſed another: they ſay, that ſubſiſtence denotes the totality of a thing, abſtracting from the thing of which it forms the *whole*, in oppoſition to a part, which ſubſiſts or is ſupported, only by that whole, of which it is a part; thus they ſay the finger, head, foot, or any other limb of the body, ſubſiſts, and is in ſome meaſure ſupported by the body of which it is a part; and thus they ſay the ſoul of a

* De Trinitate, p. 51. † Ibid. p. 514.

man, singly taken, does not subsist, because it is only a part of a man, and not the whole man.*

37. This definition is only a modification of the first, and equally unintelligible; for to distinguish the *totality* of a thing, from the *whole* of a thing, is a vain attempt to abstract where there can be no abstraction; for who can abstract the totality of a thing from the whole of a thing? And, since it cannot be abstracted, how can it be opposed to a part, or to any thing whatsoever? In one of the examples, *subsist* is used as synonimous to exist; in the other, it either contradicts this sense, or has no meaning: thus when it is said that the finger, or other limb, subsists in the body, the meaning is, that it exists in or forms a part of the body, and is so far supported by it, as it is connected with it: but when it is said, that the soul of a man, singly taken, does not *subsist*, this means either that it does not exist, or else it means nothing intelligible.

38. The signification of subsistence being so obscure, it is not surprising, that theologians and the metaphysicians, who admit it, should

* Du Hamel, p. 294. 297. Segni Metaph. 79. Tournely de Trinitate, 515.

dis-

disagree in explaining what sort of thing it is; nor is an account of their opinions idle or superfluous, as upon some or other of them; doctrines of great importance have been founded, for denying of which, thousands have been deprived of their lives or properties: though these opinions are so glaringly absurd, that barely to state them is sufficient to refute them.

39. First, then some assert, that subsistence is the mere negation or absence of union with any other substance; if so, it is merely nothing, and requires no particular name, for every one sufficiently understands that things that are not united, are not united, and negations exist only in the mind.

40. Secondly, others will have subsistence to be a particular mode, or entity, rendering one substance naturally incommunicable to another substance. Such entities are evidently unintelligible and fictitious.

41. *Person*, in the common English language, is taken either absolutely or relatively.

42. When taken absolutely, it denotes, as Mr. Locke observes, " a thinking intelligent

being that has reaſon and reflection, and can conſider itſelf, as itſelf, in different times and places."* Thus a perſon may be the ſame ſubſtance but not the ſame perſon: thus a child juſt born cannot be called a perſon, at leaſt not the ſame perſon as when of the age of ten years, though he is the ſame ſubſtance at both periods; hence, brute animals are not perſons; nor is a madman while mad, nor an ideot, nor a drunken man while drunk.

43. When taken relatively, it denotes alſo an intelligent agent, conſidered in different relations or characters, whether real or fictitious.

44. *Real*, as when we ſay, that the ſame man may be conſidered as a different perſon in private life, from what he is in a public ſtation; thus he may be a good judge but a bad huſband. Thus Sir Walter Rawleigh, in his preface to the Hiſtory of the World, towards the end, ſays, that "ſome perſons, by "reaſon of their ſubjection to their private "paſſions, may ſeem different perſons in one and the ſame day."

45. *Fictitious*, as when an actor aſſumes and

* Book. ii. Chap. xxvii. ſec. 9.

repreſents the perſon of another, whom he is therefore ſaid to perſonate.

46. In the claſſic Latin and Greek languages, the word perſon ſeems not to have the abſolute ſenſe it has in modern languages, but rather the relative, referring to the office, condition, appearance, or character, whether real or aſſumed. Thus Cicero ſays, "Suſtineo "unus tres perſonas, meam, adverſarii, judicis". And "partes lenitatis ſemper egi libenter, "ſeveritatis perſonam non appetivi, ſed a re-"publica impoſitam ſuſtinui." And "ad eam "rationem Satis aptam eſſe exiſtimabam "naturam et perſonam meam." So Livy ſays "alienam ferre perſonam." And Corn. Nepos "non dubito fore qui hoc genus ſcri-"bendi non ſatis dignum ſummorum vi-"rorum perſonis judicent."

So in the Greek, Προσωπον denotes only *face*, or external *appearance*, even in the New Teſtament.

Dr. Doddridge diſtinguiſhes three ſenſes of the word perſon:* "The word perſon (he "ſays) commonly ſignifies one ſingle intel-"ligent voluntary agent, or conſcious being;

* Lectures, Part vii. p. 169.

 "and

" and this we call the *philoſophical* ſenſe of the
" word; but, in a *political* ſenſe, it may
" expreſs the different relations ſupported by
" the ſame philoſophical perſon, v. gr. the
" ſame man may be father, ſon, huſband,
" &c.; and the ſame prince King of Great
" Britain, duke of Brunſwick, and treaſurer
" of the empire, &c."

He adds, " beſides this, ſome have given " various definitions of *perſon* in the *theological* " ſenſe, of which few are more remarkable " than that of Marcus, that perſonality is a " poſitive mode of being, ultimately ter- " minating and filling a ſubſtantial nature, " and giving to it incommunicability." But Marcus is not ſingular; he agrees with thoſe metaphyſicians who aſſert ſubſiſtence to be a mode; and in fact it is the ſame thing as ſubſiſtence, as already ſeen.

47. The notion moſt generally received, however, agrees with that of Locke; Boetius defines it, " naturæ rationalis individua ſubſtantia;" with whom Aquinas agrees; and Tournely de Trinitate, 513; and many others, whom it is needleſs to quote. Their notion

of

of perſonality I ſhall paſs over, as in general it is the ſame as their notion of ſubſiſtence.

48. The beſt definition of perſonality is that of Dr. Paley, in his Natural Theology, chap. 23. p. 439: "the capacities of con-"triving, deſigning, and reaſoning, conſtitute "perſonality, for they imply conſciouſneſs "and thought." I have added *reaſoning*, elſe brute animals might be called perſons; many allow them thought, but no one calls them *perſons*.

SECT. III.

OF MODE, PROPERTY, QUALITY, ACCIDENT.

49. *Mode* is that ſtate, whether of body or mind, which may be acquired or changed without loſs of the identity of either; to *modify* is to induce ſuch a change.

50. The *modes of a body*, are either internal or external; both, are the body itſelf ſtanding in particular relations. The internal (ſo Locke, B. ii. C. 13, ſec. 5,) conſiſt in the relation of the parts of a body to each other, either with reſpect to ſituation, mobility, motion, or quiet. Such are figure, ſolidity,

 liquidity,

liquidity, volatility, fluidity, rarefaction, and condenfation.

51. The external are the relations of a body to other bodies, fuch as motion or quiet.

52. *The modes of mind* are the mind itfelf, either *acting*, as when it judges or wills, or is *acted upon*, and therefore paffive, as in its fenfations and other perceptions.

53. As no mode can exift without a being, of which it is a mode, fo no being can exift without a mode: hence modes cannot be called beings, but modes or ftates of beings; thus, pain cannot be confidered abftractedly from the being that fuffers it; bodies muft have fome figure, and the mind fome perception.

54. *Property* denotes fomething belonging to a fubftance or mode, or derived from its nature and conftitution; thus language is a property of the human fpecies, and to contain moft fpace under the fmalleft furface, is the property of a circle.

55. All properties are either *powers*, or *fufceptibilities*; thefe are frequently called powers, or paffive powers, and the former active.

56. First, *powers:* thus it is a property of acids to redden certain vegetable blues, of animals to breath, &c. Secondly, *susceptibilities:* thus it is a property of iron to be attracted by a magnet, or to receive the magnetic power.

57. Properties are also either *essential* or *contingent.*

58. Essential, as those that contribute to form the nominal essence, when they are singly considered. Thus *attractibility by the magnet* is an essential property of iron, it being one of those properties that enter into the definition of that metal, and which form its nominal essence. So *eternity* is essential to the Divine Being, flowing from the necessity of his existence. So truth or falsehood are essential properties, or qualities, of an affirmative proposition.

59. Again, essential properties are either *universal, generic, specific,* or *individual. Universal,* are those which are found in all bodies, as *gravitation,* except perhaps caloric, or light. *Generic,* as those which are found in all animals. *Specific,* as those which are found only in one species of animals. *Individual,*

as

as thoſe by which one individual is diſtinguiſhed from another of the ſame ſpecies.

60. *Contingent,* as when a ſuſceptibility is reduced to actuality; thus ſuſceptibility of ſcience is a property eſſential to man, but the *actual* acquiſition of any ſcience, is a property merely contingent; thus the various mental modes are contingent, as the perceptions of pleaſure or pain, joy or grief; as the mind has the ſuſceptibility of either; but perception of ſome kind is eſſential to it, as a figure of ſome kind to bodies.

61. The ſcholaſtic diſtinction of properties ſhould not be entirely overlooked; relatively to a ſpecies, ſcholaſtics diſtinguiſh four ſorts.

Firſt, properties *that belong to a whole ſpecies, but not to that ſpecies alone:* thus, to have two eyes, is a property of the human ſpecies, but not of the human ſpecies ſingly; for many other ſpecies of animals have alſo two eyes: theſe I have called generic properties, ſome however are not generic; thus to have two legs is a property of the human ſpecies, but not of the human ſpecies alone, for it belongs alſo to birds.

Secondly, properties that are found only in one ſpecies, but not in all the individuals

of

of that ſpecies; as a genius, or diſpoſition, for poetry, or muſical compoſition, &c.

Thirdly, properties that are found in a whole ſpecies; and ſolely in that ſpecies, but not always; thus to reaſon is a property of the human ſpecies, and of the human ſpecies ſingly; yet men cannot reaſon when aſleep, intoxicated, delirious, or in a violent paſſion, &c.

Fourthly, properties that belong to a ſingle ſpecies only, and at all times; as the power of ſpeech, which belongs to the human ſpecies only, and can ſpeak even when aſleep.

62. *Qualities*, as they are differently applied, denote either ſenſations or relations; for they are *phyſical*, *intellectual*, or *moral*.

63. By phyſical qualities, Mr. Locke, (B. ii. C. viii. ſec. 7. 8, 9, and 10.) underſtands, powers which certain bodies have (as he ſays) of exciting perceptions: theſe he diſtinguiſhes into primary and ſecondary qualities; the primary are extenſion, ſolidity, mobility, and figure; the ſecondary are colours, ſounds, taſtes, and ſmells; but in fact theſe qualities are mere ſenſations: the tactile, are not the qualities of any thing, but form and conſtitute

bodies:

bodies: the visual, audible, sapid and odorous, form the secondary qualities, which are properly qualities, as they denote and accompany the former, but do not constitute them, as will be shewn in the sequel. Secondary qualities, are those that are referred to tangible sensations, as colour, &c. Primary are those which are referred to no other; as the tangible sensations of extension and solidity.

64. *Intellectual* qualities denote the various degrees in which intellectual powers are possessed, as sagacity, penetration, comprehension, discernment, &c.

65. *Moral* qualities denote the relations which certain objects or actions have to our moral instincts, happiness, or misery.

66. *Accident* denotes, first, any thing superadded or happening to a body or substance, and which has no necessary connection with it; thus silver is accidental to a lead ore, or antimony to a silver ore; as lead or silver ores may well exist without such ingredients.

67. Secondly, an unforeseen event is said to be *accidental*. It differs from *chance*; as this denotes the happening of an event, where another

another or many more are ſuppoſed equally probable. Thus the birth of a male child is ſaid to happen by chance, becauſe the birth of a female is ſuppoſed to be equally probable, or nearly ſo; but theſe terms are frequently confounded.

SECT. IV.

DIFFERENCE, DISTINCTION, PRIVATION, OPPOSITION.

68. *Difference:* thoſe things are ſaid to differ from each other, which exhibit any thing, either abſolute or relative, which the other does not. Hence difference conſiſts in the preſence or abſence of one or more properties, modes, qualities, relations, or accidents, which are found in one of the objects compared, and not in the others. Difference then implies the abſence of ſimilitude in all reſpects, or in ſome one reſpect: thus a metallic globe, and an ivory globe of the ſame dimenſions, are ſimilar in reſpect to their ſhape, but different in every other reſpect.

69. Differences are therefore either eſſential or noneſſential. Eſſential differences are either tranſcendent, as that betwixt the Di-

vine

vine ſubſtance and any created ſubſtance; or *generic*, as the differences of created ſubſtances of different *kinds*; or *ſpecific*, as the differences that diſcriminate different ſpecies of the ſame genus; or *noneſſential*, ſuch as the differences of modes, properties, qualities, or accidents, of individuals of the ſame ſpecies: for the modes, properties, or qualities, of different ſpecies differ eſſentially, unleſs abſtractedly conſidered, and ſimilar to each other, as a circle of iron, or of ſtone, or of wood.

70. *Diſtinction:* thoſe things are ſaid to be diſtinct whereof one is not preciſely what the other is. Diſtinction then denotes the abſence of exact identity: it muſt not then be confounded with difference; for two globes, or pieces of coin of the ſame metal, may be entirely ſimilar, and conſequently not differ in any reſpect from each other; but they are perfectly diſtinct, ſince they are two, and not one. Difference is oppoſed to ſimilarity, diſtinction to ſameneſs.

71. Diſtinctions are either real, modal, or mental.

72. *Real*, as the diſtinction between two or more ſubſtances; as the ſoul of one man

from

from that of another man, or of angelic beings; or the modes, properties, or qualities, of distinct substances: thus the thoughts of one man, even when perfectly similar, are really distinct from those of another man.

73. *Modal:* thus the various sensations, ideas, volitions, &c. of the same mind, are not only distinct, but frequently very different; for instance, the sensations of pleasure and those of pain, or of pleasures of different sorts, or of pains of different sorts or degrees. Some have called the distinction of pleasing and painful sensations real, and justly, if they mean by *really* distinct, that they are *truly* distinct and different, and independently of the mind, but not in the sense in which the word real is usually taken; for surely they are not as distinct from each other as one man is from another, for they are merely distinct or different states of the mind. The distinction betwixt the mind and its modes is also merely modal; for mode implies a mind of which it is a mode, but mind does not imply any particular mode.

74. *Mental,* as that which exists between the powers or properties of the same mind.

Thus

Thus the power of judging is diſtinguiſhed from the power of willing; the ſuſceptibility of ſenſations is diſtinct from that of receiving ideas, or emotions, or moral impreſſions, &c. It is plain theſe powers are not *really* diſtinct from each other, nor from the ſubſtance of the mind; for they are the mind itſelf, as capable of theſe different exertions or impreſſions, and form what Locke calls its nominal eſſence. Nor are they *modally* diſtinct, for they are not ſtates of the mind; and thence we are not conſcious of poſſeſſing them, but only know by experience that we do poſſeſs them; yet they are diſtinct, as they relate to different objects, and have different effects: and hence their diſtinction is merely *mental*. One cannot exiſt without the other, though their exertions may be variouſly obſtructed: this diſtinction is commonly called *virtual*.

75. *Negations* denote acts of the mind, denying the preſence, or (in other words) affirming the abſence either of *all* beings, modes, properties, qualities, or relations, or of ſome *particular* mode, property, quality, or relation; which denial may be expreſſed with or without any reference to the ſubject of

ſuch

ſuch mode, property, quality, or relation, that is, in concrete or abſtract terms.

76. Thus the word *nothing* denotes a denial of all beings, modes, &c.: ſo *ſilence* denotes the abſence or denial of *ſound*; *blindneſs* the abſence of the power of ſeeing; *darkneſs* the abſence of light; *deafneſs* the abſence of the power of hearing; *inſipidity* the abſence of taſte; *widowhood* the abſence of the relation to a pre-exiſting huſband, &c. *So concrete negative words* expreſs indefinitely the ſubject of the mode, property, quality, or relation, which is denied: thus *blind* denotes indefinitely an animal to whom the power of ſight is denied; *deaf*, one to whom the power of hearing is denied; *widow*, a woman, to whom the relation to a pre-exiſting relation, a huſband, is denied; *childleſs*, a perſon to whom the relation to an offspring is denied.

77. Hence negations, as ſuch, exiſt only in the mind denying the exiſtence of all beings, or of ſome mode, property, &c. and grounded on the nonexiſtence of what is ſo denied.

78. A *ſhadow* is a ſpace, which, by reaſon of the intervention of an opake body, has leſs light thrown upon it than is thrown on

 the

the ſurrounding ſpace, or no light at all. And yet, as Mr. Locke remarks,* the ſhadow is diſcernible, and the more diſcernible as leſs light is thrown upon it. Hence he infers, that darkneſs may be ſeen: this I do not think true. It is the enlightened circumference of the ſhadow, or darkened ſpace, and not the darkneſs itſelf, which can be ſaid to be ſeen, and the more diſtinctly ſeen as the ſpace it ſurrounds is darker: this circumference delineates the figure of the opake body that interrupts the light. Darkneſs can no more be ſeen than ſilence heard; yet both are ſaid to be perceived, or rather judged to exiſt, when no light, or a comparatively moderate light, is perceived in the one caſe, or no ſound in the other.

79. In *technical language*, the abſence of modes or powers, &c. from ſubjects that are not capable of receiving them, are called *negations*; and their abſence from ſubjects in which they are uſually found, are called *privations*. Thus inſenſibility, or abſence of feeling, in mineral bodies, is called a nega-

* Book ii. ſec. 5, 6. Chap. viii.

tion; and blindneſs in animals, is called a privation.

80. *Oppoſition* denotes the repugnance or incompatibility of the preſence and abſence of the ſame thing at the ſame time. Thus exiſtence and nonexiſtence are oppoſed to each other, and ſight and blindneſs, &c.

81. Or, ſecondly, the incompatibility of different modes in the ſame circumſtances and the ſame organ. Thus a figure cannot at the ſame time appear round and ſquare; but a round figure may in a certain poſition appear elliptical, and by certain dioptrical glaſſes appear of a different figure: ſo alſo the ſame water may appear cold to a warm hand, and warm to the other colder hand.

82. Or, thirdly, the impoſſibility of being at once the ſubject and term of the ſame (not merely a ſimilar) relation. Thus a man cannot be both the father and the ſon of the ſame perſon: and thus correlatives are oppoſed to each other.

SECT. V.

OF UNITY, NUMBER, QUANTITY, INDIVIDUATION, IDENTITY, INFINITE INDEFINITE.

83. Any thing or collection of things which cannot be divided or diſtinguiſhed into more things equal to it, is called *one* or an *unit*. Thus a *man* is one, becauſe he cannot be divided into two men: ſo an *army* is an unit, becauſe it cannot be divided into two equal armies: ſo a kingdom is *one*, as it cannot be divided into two equal kingdoms.

84. Unity is either perfect or imperfect.

85. *Perfect* is that which is incapable of being divided into any parts whatſoever, whether equal to the whole or unequal to it. Thus God and the human ſoul are perfect units, as they do not conſiſt of parts. *Single* ſignifies not more than one: *alone* ſignifies having no companion.

86. *Imperfect* units or things are combinations of things or units under *one name*, and conſequently diviſible into parts. Thus an *army* denotes a combination of regiments, companies, and finally of the men that compoſe

poſe it: a *houſe* denotes a combination of walls, windows, rooms, chimneys, &c.: and a *city* a combination of houſes, ſtreets, lanes, &c. In a word, whatever the mind conſiders as *one*, that is an unit: thus *dozen*, though conſiſting of twelve units, is called *one* dozen, &c.

87. The parts of an imperfect unit, if of the ſame kind as the unit, are called fractions.

88. *Number* is defined by Euclid, a collection or aſſemblage of units, of the ſame kind or ſpecies: if of different kinds, we ſhould rather call it a *multitude*. Any number greater than *one* is called *plurality*.

89. *Quantity* denotes any thing ſuſceptible of increaſe or diminution until this increaſe arrives at its *maximum*, or the diminution to a *minimum*: if ſuſceptible of exact menſuration or numeration, it is called a *perfect* quantity; if not, *imperfect*.

90. No modes (except the tactile), nor properties, qualities, or relations, are capable of *exact* menſuration, though many are ſuſceptible of increaſe or diminution: their various approaches to the greateſt increaſe or diminu-

tion (whichſoever we reckon from), are called *degrees*: ſome of them are indirectly menſurable by their coincidence with ſome tactile modes. Thus heat and cold are menſurable by the ſpace which the bodies that poſſeſs them occupy, and its proximity or diſtance from the *maximum* or *minimum* ſtandard of their intenſity.

91. Quantities are either connected or unconnected; the former are called *continued*, the latter *diſcrete*.

92. *Individual* ſignifies a perſon (or even an animal) ſeparate or diſtinct from another of the ſame ſpecies.* Hence Locke juſtly inſiſts, that the principle of individuation, or that which eſſentially diſtinguiſhes one individual from another, is the ſeparate or diſtinct *exiſtence* of each, † which makes one individual incommunicable to the other, in oppoſition to the opinion of ſome ſcholaſtics, who would have individuals diſtinguiſhed from each other by ſome fictitious entity or formality ſuper-

* A child in its mother's womb is not ſeparate, but diſtinct from the mother.

† Locke, B. ii. C. xxvii. ſec. 3; and Clarke's Reply to Waterland, 308.

added

added to each. In general, however, their diſtinction is notified by ſome accidental difference of ſize, ſhape, voice, features, &c. But even if they were perfectly ſimilar, they would ſtill be diſtinct and ſeparate, occupying different places, and acting differently.

93. *Identity*, or *ſameneſs*, in the ſtrict ſenſe of the word, denotes the excluſion or denial of any change in the *nature* of the thing which is ſaid to be the ſame.

94. Thus a ſubſtance, for inſtance the human ſoul, is juſtly ſaid to be the ſame when no other ſubſtance is ſubſtituted in its ſtead; but a change of its modifications, as the ſubſtance itſelf is not altered, does not prevent it from being the ſame ſubſtance, or affect its identity: thus the ſoul this hour feeling pain, and the next hour pleaſing ſenſations, is ſtill the ſame ſoul; nor is it changed by thinking on different things, &c. So a child is deemed to be the ſame being when a grown man: ſo a mode (property, quality, or relation) is deemed to be the ſame mode while it undergoes no alteration, for its nature is not changed; nay, an interruption of the exiſtence of a ſubſtance, or mode, &c. does not

prevent them from being exactly the ſame, when renewed, with what they were before ſuch interruption. Thus if my ſoul was annihilated this day, and again created to-morrow, or next year, it would ſtill be my ſoul the ſame, and not another: ſo if the pain which I may feel to-day be exactly, both in kind, and degree, and reference, ſuch as I felt yeſterday, notwithſtanding any interruption, I muſt deem it the ſame, and not merely *ſimilar*; for it is only the pain ſuffered by another perſon, and not differing from mine in either kind or degree or reference, that can be called ſimilar.

95. I cannot, therefore, agree with Mr. Locke, (B. ii. C. xxvii. ſec. 13.) in thinking identity to be a relation, either to time or to place; for theſe and other particulars are conſidered only with the view of aſcertaining identity, by obſerving whether any change in the object has happened from the time in which it firſt exiſted or was known, or whether another had ſince been ſubſtituted in its place.—"When we demand (ſays he), whe-"ther any thing be the ſame or no? it refers "always to ſomething that exiſted at ſuch a "time,

" time, at ſuch a place, which it was certain " at that inſtant was the ſame with itſelf, and " no other." How a thing can be the ſame with itſelf I do not well underſtand: it appears to me, that the meaning of the queſtion is, has the thing been changed from ſuch a time? Hence he infers, " that one thing " cannot have two beginnings of exiſtence;" which alſo appears to me a miſtake; for I cannot think a thing to become impoſſible, merely for having once ceaſed to exiſt.

97. Concerning the identity of man,* Locke† inquires very minutely in what it conſiſts: whether in poſſeſſing the ſame ſubſtance, or the ſame ſhape? and in what caſes he can be deemed the ſame perſon? In reply to theſe queſtions—

He affirms, firſt,‡ that " whoever would " ſee a creature of his own ſhape and make, " though it had no more reaſon than a cat, " would ſtill call it a man:" a common man would probably do ſo, but a philoſopher, not

* I omit mentioning other animals here, as it is, at leaſt, doubtful whether they are not mere automatons.

† Sec. 7. ‡ Sec. 8.

knowing

knowing its origin, would probably ſuſpend his belief until more amply informed.

98. Secondly, he is confident that whoever would hear a cat or parrot diſcourſe, reaſon, and philoſophize, would ſtill call and think it nothing more than an intelligent rational parrot. On the contrary, I am diſpoſed to think, that, in ſuch a caſe (if ſuch can be ſuppoſed), every one would conclude that ſuch animals were animated by a ſupernatural agent, and not mere cats or parrots. Thus every chymiſt would conclude, that a ſubſtance having all the properties of gold, except inſolubility in water, was not gold.

99. Thirdly, he thinks* that "whoever "ſhall place the identity of man in any thing "elſe but like that of other animals, in one "fitly organized body, taken in any one in"ſtant, and thence continued, under one orga"nization of life, in ſeveral ſucceſſively fleet"ing particles of matter united to it, will "find it hard to make an embryo, one of "years, mad and ſober, the ſame man, by any "ſuppoſition that will not make it poſſible "for St. Auſtin and Cæſar Borgia to be the

* Sec. 6.

" ſame man." On the contrary, I am certain that an embryo, gradually paſſing to maturer age, and whether mad or ſober, would be, and always is, thought the ſame human being, though not called a man until of a certain age.* And it were abſurd to think that St. Auſtin and Cæſar Borgia could by any poſſibility become the ſame man, the mental characters and diſpoſitions of both being irreconcilably different, and no gradual tranſition from one to the other is ſuppoſed; but, ſetting aſide the knowledge we have acquired from revelation, I do not think it impoſſible that Charles the Second and Tiberius might have been the ſame man.

100. Fourthly, he ſuppoſes, that though one ſhould know that the ſoul of a man animated an animal of another form, for inſtance, the ſoul of Heliogabalus the body of a hog, he would not ſay that hog was a man. I certainly would ſay it was a man, in the ſhape of a hog, for it contained the principal part of a man, and *denominatio fit a potiori*; juſt as I would ſay, that a copper coin, ſo

* As the word *man* denotes not the ſpecies and ſex, but alſo frequently a certain age.

whitened

whitened as to look like ſilver, was ſtill copper, and not ſilver.

101. Fifthly, he propoſes two queſtions: firſt, "whether, if the ſame ſubſtance which "thinks be changed, it can be the ſame per- "ſon? and, ſecondly, whether remaining the "ſame (ſubſtance), it can be different per- "ſons?"

101. His anſwer to the firſt queſtion, as far as it regards the ſyſtem of materialiſts, I ſhall not notice, as I conſider that ſyſtem as purely chimerical: but, ſuppoſing immaterial ſubſtances only to think, he anſwers, "that this "queſtion can be ſolved only by thoſe that "know whether the conſciouſneſs of paſt ac- "tions can be transferred from one thinking "ſubſtance to another." He grants, "that "were the ſame conſciouſneſs the ſame indi- "vidual action, it could not; but it being "but a preſent repreſentation of a paſt ac- "tion, why it may not be poſſible that that "may be repreſented to have been which "really never was, will remain to be ſhewn; "and, therefore, how far the conſciouſneſs of "paſt actions is annexed to any individual "agent, ſo that another cannot poſſibly have

it,

"it, will be hard to determine, until we "know what kind of action it is that cannot "be done without a reflex act of perception "accompanying it. But that which we call "the *ſame conſciouſneſs*, not being the ſame "individual act, why one intellectual ſub-"ſtance may not have repreſented to it, as "done by itſelf, what it never did, and was "perhaps done by ſome other agent; why "ſuch a repreſentation may not poſſibly be "without reality, as well as ſeveral repreſen-"tations of dreams are, will be difficult to "conclude from the nature of things.* If "the ſame conſciouſneſs can be transferred "from one thinking ſubſtance to another, it "will be poſſible that two thinking ſub-"ſtances make but one perſon; for the ſame "conſciouſneſs being preſerved, whether in "the ſame or different ſubſtances, the perſonal "identity is preſerved."

102. Here Mr. Locke ſeems to have miſ-taken the nature of conſciouſneſs, which it is therefore neceſſary to explain.

Every perception is the perception *of* ſome-

* Sec. 12, 13.

thing,

thing, and *by* ſomething. Inaſmuch as it refers to the thing or object perceived, it is ſimply called a *perception*; inaſmuch as it refers to the percipient, or mind that perceives, it is called *conſciouſneſs*: perception, then, and conſciouſneſs, are not two different modifications, but one ſingle modification, conſidered in diſtinct relations. Thus when we ſee any thing, colour is the *object* perceived, and mind is that by which it is perceived.

103. Beſides the conſciouſneſs of our perceptions, we have alſo a conſciouſneſs of the *identity* of the percipient ſubſtance: thus when I ſee a colour, and at the ſame time hear a ſound, I am conſcious, that is, I feel and evidently know, that I am the ſame *ſelf* or ſubject that receives theſe two different ſenſations; but of a paſt ſenſation I can have no preſent conſciouſneſs, for the very reaſon that it is paſt: that I had it, I know only by *memory*, and not by conſciouſneſs.*

104. In the ſame manner the identity of our *paſt* ſelf, with our *preſent* ſelf, we know

* So alſo Dr. Reid on the Mental Powers, Eſſ. iii. C. vi. p. 334, in 4to.; and Segui Log. 483.

only

only by memory, (the explanation of which here would be too tedious, and out of place): now memory may be rendered inaccurate by various disorders, and is constantly so in dreams.

105. But, to return to Mr. Locke, we may remark that he here seems to forget the definition of consciousness which he had given B. ii. C. i. sec. 19. He there very properly lays it down, that *consciousness is a perception of what passes in a man's own mind.* Therefore there is no difficulty in determining whether the consciousness of past actions is annexed to any individual agent, so that another cannot possibly have it, as no agent whatsoever can have the consciousness of a past action; but there is no doubt that a person may have his imagination so disordered, as to think himself a different person from what he really is, and may, in that case, fancy he remembers, as his own, the actions performed by that person; thus Pythagoras, in Ovid, Metam. Lib. xv. v. 160, fancied he remembered having been Æthalides, and afterwards Euphorbus, and having been wounded at the siege of Troy, &c. This however is

not

not true memory, as ſhall elſewhere be ſhewn; much leſs is it conſciouſneſs; and conſequently, it is impoſſible that two thinking ſubſtances ſhould make but one perſon.

106. To the ſecond queſtion, "whether "the ſame immaterial ſubſtance remaining, "there may be two diſtinct perſons?" he anſwers, that without having the conſciouſneſs (that is, the memory) of having been another perſon, though it ſhould formerly have animated a different body, it yet cannot be deemed the ſame perſon; and, conſequently, now animating a different body, it muſt be deemed a diſtinct perſon. But if it had the conſciouſneſs (memory) of any of its actions in a former ſtate, it would then be the ſame perſon. And this I believe to be true, if ſuch memory were not the effect of delirium or inſanity.

107. Hence he concludes;* that perſonal identity conſiſts, not in identity of ſubſtance, but in identity of conſciouſneſs. Thus Socrates aſleep is not the ſame perſon as Socrates awake, and therefore it would be unjuſt to puniſh him when awake for what he did when aſleep. He allows him to be the

* Sec. 1. 9.

ſame

ſame *man*, but not the ſame *perſon*. "And if it "were poſſible for the ſame man to have "diſtinct incommunicable conſciouſneſſes at "different times, it is paſt doubt the ſame "man would at different times make different "perſons; hence human laws will not puniſh "the mad man for the ſober man's actions, nor "the ſober for the mad man's."

I ſhould rather think that perſonal identity requires both identity of ſubſtance and ſuch memory as would enable a man to conſider himſelf as himſelf at different times and places, as Locke himſelf lays down.* Strictly ſpeaking, indeed, a man when aſleep or mad, cannot be deemed a perſon; becauſe in thoſe ſtates he has not the uſe of reaſon; which, as Locke owns, is neceſſary to conſtitute a human being, a perſon; and, therefore, it would be unjuſt to puniſh him for actions committed in thoſe ſtates, though ſtill the ſame man, having in thoſe ſtates neither reaſon nor liberty. And if it were poſſible for the ſame man to have different trains of reminiſcence at different times, ſo as that he

* Sec. 9.

could not consider himself as the same man, though enjoying each time the use of reason I also think he may be esteemed two different persons; as, to constitute a man the same person, persuasion of identity, grounded on memory, is necessary, as well as identity of substance.

108. Identity is either physical or moral, that is, popular and apparent.

109 *Physical* identity denotes the identity of substance, or modes, as already said, N° 93. 94.

110. *Moral* identity denotes that which vegetables and animals possess, and consists in the peculiar disposition of the parts of each, appropriated to each species, and such organization of those parts, in one coherent body, as to fit them to receive nourishment. In such organization, vegetable and animal life consist: they therefore continue the *same*, as long as that life continues, though the parts be continually changed, by the loss of some and the accession of others. Thus an oak growing from a plant to a great tree, and then lopped, is still the same oak; and a colt grown up to a horse, sometimes fat, some-

times

times lean, is ſtill the ſame horſe, though in both caſes there is a manifeſt change in the parts *

111. So alſo unorganiſed bodies, that preſerve the ſame general appearance at different times, though their parts ſucceed each other and are conſtantly changed, are, in popular language, called the *ſame*, and preſerve the ſame denomination. Thus, though the water of a river is continually changed, yet while it preſerves the ſame, or nearly the ſame, direction, it is called by the ſame name, and is eſteemed the ſame river. So the ſhip of Theſeus continued ſtill to be called the ſame ſhip, when after repeated repairs there did not remain a ſingle piece of the timber of which it had been originally built.

112. Identity is alſo diſtinguiſhed into generic, ſpecific, and individual: this laſt alone denotes true and real identity; the two former refer only to the claſſification of objects, and ſuch identity is, properly ſpeaking, only a greater or leſs degree of *ſimilitude*; thus we ſay, that wine, in two glaſſes taken out of the ſame bottle, are the *ſame wine*, becauſe

* Locke, Book ii. Chap. xxvii. ſec. 3

the wine in one is in every respect similar to that in the other. But they are not exactly or *individually* the same, since one may be thrown away, and the other remain; they are only *specifically* the same.

SECT. VI.

113. *Infinite* is a term taken in three senses. In the first, and most rigourous sense, it denotes the actual exclusion of limits from the quantity to which it is attributed: this is called an *actual infinite.*

114. In the second sense it denotes a quantity, which *can* be increased or diminished without ever arriving at the *maximum* of increase or diminution; that is, without ever arriving at a limit of either: this is called a *potential infinite.*

115. Thirdly, it denotes a quantity whose limit, whether of increase or diminution, is abstracted from, and therefore *unassignable.* This is called, a *mathematical infinite,* being a mere mathematical device to abridge and facilitate certain calculations: but no mathematician at present pretends that any quantities

tities infinitely great, or infinitely ſmall, really exiſt, they being mere mental abſtractions.

116. Mathematicians even ſpeak of infinites of the ſecond, third, and fourth order, as if the infinites of the ſecond order were infinitely ſmaller than thoſe of the firſt, and thoſe of the third infinitely ſmaller than thoſe of the ſecond, &c.; but this alſo is a mere mathematical ſuppoſition, namely, that if the quantity *x* be aſſumed infinitely ſmall, with reſpect to a given finite quantity, that is, ſo ſmall that its magnitude is not aſſignable, the ratio of *y* to *x* may be as ſmall with reſpect to *x*, as *x* is with reſpect to the given finite quantity; here *x* is taken as an infinite of the firſt order, and y an infinite of the ſecond order; thus y, x, x, a; but theſe are mere ſuppoſitions, not realities, like points without extenſion, and lines without breadth, &c.*

117. Yet Mr. Fontenelle, and ſome other mathematicians imagined, that numbers infinitely great, and infinitely ſmall, really exiſt.

* See Encyclop. Mathem. p. 208. Mem. Berlin, 1745 p. 154. Lambert, Expoſition des Principes, p. 144. 1 Leib. p. 107. 1 Philoſoph. Wolfienne, 204. 205.

They are well refuted by Mr. Iarriges, in the Memoirs of Berlin for 1745, and in the Encyclop. Mathem. article *Infini.* p. 208.

118 Some have defined infinite to be a quantity incapable of increafe, and thus confounded it with what mathematicians call a *maximum*; but the finus of an angle of 90° is incapable of increafe, and yet it is not an infinite.

119. Wolfe defines an infinite to be that which has at once all that it can have. This, though expreffed in pofitive terms, ftill expreffes a negation of a limit.

120. *Subftance*, as fuch, cannot, properly fpeaking, be faid to be infinite, becaufe it is not a quantity or magnitude, as Locke well remarks; but the extent to which any property reaches, or may reach, is an imperfect quantity, and therefore fufceptible of *degrees*.

121. The phyfical and moral properties of God, as power, intelligence, knowledge, juftice, mercy, goodnefs, &c. are alone infinite, as they are incapable of any limit.

122. A *finite* quantity is that which hath a limit: of many finite things we may have an idea, and of many only a notion. Thus we

may

may form an idea of three men, or three houſes; but of a million of men, or a million houſes, we have only a notion grounded on their ſign: but of *infinite* we can form no idea, but only a notion founded on a judgment denying any limit,

123. Hence the idea or notion of *finite* is a poſitive idea, or notion grounded on a judgment aſſerting a limit, though that limit be undetermined and unknown; thus we ſay, the number of grains of ſand on the ſea ſhore is *finite*, or of blades of graſs on the ſurface of the earth, &c. is *finite*, though we cannot determine its limit and tell what it amounts to. But the notion of *infinite* is a negative notion, barely aſſerting the impoſſibility of fixing a limit to the quantity of which it is predicated; or, to expreſs the ſame thing in abſtract terms, *finitude* denotes the exiſtence of a limit; *infinitude*, the excluſion of any limit.*

124. The Carteſian philoſophers think, that the notion, or as they call it the idea, of in-

* Clarke's notion of *infinite* is incorrect; ſee his reply to Waterland, p. 226. He confounds infinite with that to which *infinity* is attributed.

finite is poſitive, and that of finite negative; and they prove it by what Locke, ſec. 14, calls a pleaſant argument: for infinite, they ſay, denotes the negation of an *end*; now an end being negative, the negation of it muſt be poſitive. Locke anſwers very properly, that an *end* is not a bare negative; thus the end of a body, is the extremity or ſuperfices of that body; he that perceives the end of his pen is black, will be apt to think that the end is ſomething more than a pure negation. So the *end* of duration is properly the laſt moment of it, and the beginning of duration is the firſt moment of it.

125. But, to anſwer this objection more fully, it muſt be noted, that the words *end*, and *laſt*, and *limited*, are excluſive words, which import ſomething poſitive, which is ſaid to be the *end*, or the *laſt*, or the *limit*, and alſo the negation of a continuance; but *infinite* ſhould in this caſe barely deny the negation of the *continuance*, but not the poſitive thing itſelf, which is ſaid to be the end, for this continuance alone is denied, and is the only negative part; therefore, the negation would be incomplete; and from the

partial

partial negation of a thing, partly poſitive and partly negative, nothing poſitive can reſult.

126. *Indefinite* is a quantity which we do not, or cannot, preciſely determine, though we know it to be finite: thus the number of grains of ſand in the ſea is indefinite. It differs from *unaſſignable* in this, that unaſſignable denotes greater or ſmaller than any number that *can be aſſigned*, whereas, indefinite denotes a number that *may exceed, or not,* an aſſigned number.

127. Many queſtions concerning infinity have been agitated at various times and occaſions, and are ſtill mentioned in various controverſies, and therefore require to be noticed here.

128. Firſt, Whether a creature infinitely perfect be poſſible?

It is generally held, that ſuch a creature is impoſſible; for, beſides many other reaſons that might be alleged, ſuch a creature would neceſſarily depend on the Supreme Being, from whom it ſhould receive its exiſtence: now dependance on any other being is incompatible with infinite perfection.

129. Secondly,

129. Secondly, Whether a number actually infinite be possible?

In my opinion, and in that of many others, it is not: such a number involves a contradiction to the notion we have of number; for, according to our notion of number, it being a collection of distinct units, it is essential to it to be capable, I will not say of addition, as that would be supposing that which is questioned, but of subtraction and division. Now if we subtract one unit from this collection, or one half of the whole, what would the remainder be? Surely not infinite: both halves would then be finite; and of two finite numbers an infinite could not be formed.

130. Thirdly, Whether the number of possible things be infinite?

This question was lately examined in the Academy of Berlin, for the year 1777, p. 408. It is there held to be finite: the opposite opinion appears to me to be true; as the number, for instance, of men possible is inexhaustible, it denoting nothing repugnant to increase; and the knowledge of God, to whom alone it is known, has no boundary:

but

but the number, whoſe exiſtence is poſſible at any given time, is finite, though unaſſignable. It is only in an infinite time that it may be conſidered as infinite—a time that can never be exhauſted or terminated; and conſequently this number can never be conſidered as a totality, not even in the Divine intellect: collectively taken, it is always finite, but diſtributively, infinite. Thus the abſurdities of an actual infinite are avoided.

131. Fourthly, Whether the Divine power be infinite?

It certainly is; for it extends to every thing poſſible, and compatible with his own nature, but not to impoſſibilities, or acts incompatible with his nature: for inſtance, to deceptions, breach of promiſes, rendering the innocent miſerable, &c. Creation is a full proof of the extent of this power, as no greater can be conceived, than to make ſomething exiſt that previouſly did not exiſt; by a mere act of will, to make all things to exiſt that were abſolutely willed to exiſt.

Yet he cannot create an actual infinite, as ſuch an infinite implies a contradiction: thus, for inſtance, a number or collection of men,

actually

actually infinite, is repugnant, as the number of eyes or ears would be ſtill greater, which is repugnant to infinitude.

SECT. VII.

OF ACTION, CHANGE, FORCE, POWER, OBJECT, SUBJECT, PERFECTION, CAUSE, MANNER, PRINCIPLE, CHANCE.

132. *Action*, in the ſtrict ſenſe, is a modification of mind produced by the mind itſelf.

133. In created minds this modification effects a change of ſuch modifications as depend on the mind itſelf, either directly or indirectly; but not in thoſe ſtates that are independent on it: this requires explanation.

134. There are but two caſes in which the mind produces its own modifications, and conſequently may be ſaid to act, or be active; namely, when it *judges*, and when it *wills*.

135. In judging, it barely affirms or denies, or doubts, or ſuſpends aſſent or diſſent.

136. The *immediate and direct* acts of the will are election or rejection, with more or leſs force, of ſuch objects as are propoſed to its choice, or ſuſpenſion of any choice; but *indirectly*, and through the intervention of the

Divine

Divine power, acting according to certain laws, as will hereafter be ſeen, it produces, or rather occaſions, a change or diverſification of its own ideas, and alſo motion in different parts of the body, ſubjected to the immediate control of its will, and through it of other bodies alſo.

137. The being that acts, or occaſions this change, is called the *agent*; and that in which it is produced, is called the *ſubject*.

138. God is the only Being that hath the power of acting on other ſubſtances, either by bringing them into, or deſtroying their exiſtence, or impreſſing on them modifications regulated and varied according to certain laws of his own appointment. We ourſelves are incapable of altering or ſuppreſſing any of our ſenſations; for inſtance, hunger, thirſt, pain, or pleaſure, by a *mere* act of our will.

139. Nor have we any reaſon to think, that other ſuperior orders of created beings can act upon us in any way, any more than that we can act upon them. The power of acting on our minds is not implied in any notion we can form of them; therefore, if it

exiſts,

exiſts, it cannot be known but by revelation; and by that Mr. Farmer has ſhewn it cannot be proved. From the ſuperiority of any order of beings over other orders, it cannot be inferred, that, in every caſe, it poſſeſſes powers ſuperior, or even equal, to thoſe poſſeſſed by inferior orders: thus men cannot fly like birds, nor inhabit the ocean like fiſh.—It is only in the power of reaſoning that the human ſpecies is ſuperior to other animals.

140. *Change* denotes a ſucceſſion of ſtates.

141. *Force* denotes the degree in which power is exerted.

142. To explain more fully the meaning of this term in the metaphyſical ſenſe, it is neceſſary to remark, firſt, that the acts of the underſtanding are elicited with a degree of confidence, greater or leſſer, according as the reality and ſteadineſs of the relations on which they are founded, or their nullity, are more or leſs accurately diſcerned. Therefore, when this relation is accurately diſcerned, that is to ſay, *evident*, the mind is neceſſitated to aſſent; and if the impoſſibility of its exiſtence, by reaſon of the repugnancy of a relation betwixt the ideas or notions offered, be clearly

perceived

perceived or difcerned, the mind is neceffitated to deny its affent. But if the relation, upon which a judgment fhould reft, be not clearly difcerned, but only the poffibility of its exiftence *apparently* fuperior to that of its nonexiftence, then the affent is given with lefs confidence; and fo alfo, if the exiftence of the relation is barely inferred from a weak analogy, and *vice verfa*. Alfo, if the nonexiftence of the relation, or its repugnancy, be not clearly difcovered, but only the *apparent* inferiority of the chances favourable to its exiftence, or if its nonexiftence be inferred barely from its entire want of, or at leaft from an imperfect, analogy, the diffent or affent is attended with a lower degree of confidence.

143. Secondly: With refpect to the will, its acts are accompanied with more or lefs *defire* or *averfion*, according, in one cafe, as the objects propofed to its election appear to contribute more or lefs to its fatisfaction or happinefs, or in the other, to its diffatisfaction or mifery. Thefe degrees, whether of confidence with refpect to the acts of the underftanding, or of defire or averfion with

refpect

reſpect to thoſe of the will, conſtitute what, in the ſtrict ſenſe, is called *force.*

144. But *force* is alſo underſtood in a more enlarged ſenſe; for as the Supreme Being, in certain caſes, alters or moves that aggregate of ſenſations which are called *bodies*, and that frequently in correſpondence to the deſires of the will, as well as to the laws by which the ſucceſſion of theſe ſenſations and their various kinds are regulated, it may be ſaid that the will itſelf, conforming to theſe laws, acts upon its own and other bodies with an extent proportioned to the intenſity of its wiſhes, the nature of the bodies acted on, and the laws by which they are governed. The extent or degree of the action on bodies reſulting from the combination of their maſs and velocity, exerted directly by the Supreme mind, or indirectly by the human, is what is called *phyſical force.* Bodies themſelves are perfectly paſſive, and the motions, ſeemingly ariſing from an unintelligible communication of force or motion, are, in fact, changes operated ſolely by the operation of the Divine will, uniform or varied, according to laws adapted to each particular caſe.

145. *In morals*, it denotes the degrees of appetibility of objects presented to the mind, or, on the contrary, their aversibility; that is, the disgust, aversion, or abhorrence, they seem calculated to excite and inspire; for such as is their appetibility or aversibility, such is their force.

146. *Power*, in the metaphysical sense of the word, denotes an essential property of mind, which renders it fit or sufficient for the production of action, and thereby to effect a change of state, or a new existence, or modification, or relation.

147. As the mind acts both in judging and willing, it must possess both powers; but to produce either action, objects must be presented to it. To enable the understanding to judge, the objects must be intelligible, otherwise they would not be objects but mere sounds; they must bear some relation to the mind itself, or to each other, else no judgment concerning them can be formed; but if they be such as imply the impossibility of any relation to each other, the mind can affirm this repugnancy.

148. The relations of objects to the mind

are thoſe which are diſcerned to contribute either to gratification or happineſs, or, on the contrary, to pain or miſery; the former it deems *appetible*, the latter *averſible*, and both in various degrees, as mentioned in N°. 143. Thus diſtinguiſhed and characterized, the underſtanding preſents them to the will, or *elective power*, with all the known circumſtances neceſſary for, or conſequent upon, their attainment or avoidance.

149. The relations of objects to each other are various; many of them have been enumerated in a former work. The mind either affirms or denies their exiſtence betwixt certain objects; that is, affirms their truth or falſehood, or diſtinguiſhes the caſes in which it deems them true, and thoſe in which it deems them falſe, that is not to exiſt, or doubts or ſuſpends its judgment.

150. Where the relations of the objects to each other, or the repugnancy of any relation betwixt them, is obvious, its exiſtence or repugnancy is diſcerned as ſoon as the terms that denote the objects are underſtood; but very commonly this diſcernment of the interceding relations, when numerous and complex,

plex, requires deliberation, time, and attention, and is ſtill more difficult, when prejudices, ſelf-intereſt, or various paſſions, obſtruct their diſcrimination and diſcuſſion.

151. And here it is, that the will uſurps a dominion over the underſtanding, compelling it to judge, either without waiting a cool and impartial diſcuſſion, or by ſpurning its dictates, to transfer to its deſires the obedience due to it alone, *video meliora proboque—deteriora ſequor.*

152. *Phyſical power* is that which the mind *indirectly* poſſeſſes (that is, by the intervention of the Divine will,) of changing its ideas by a *will*, or *volition*, to do ſo, and, under certain limitations, of producing motion in its own body, and through it, or by its means, in other bodies, as already mentioned, N°. 136, and 144.

153. *Moral power* is the connection which objects preſented to the will, as appetible or averſible, together with the emotions of deſire of the former, and reluctance to the latter, have with its conſent or rejection and ſubſequent reſolutions, or ſuſpenſion of either.

154. It is founded on the inſtinctive propenſity

penſity of all ſenſitive beings to attain pleaſure or happineſs, either preſent or future, and to ſhun actual or future pain or miſery.

155[a]. Objects preſented to the will under theſe different aſpects, and frequently accompanied with the emotions of deſire or averſion, are called *motives*.

155[b]. Any thing, however denominated, preſented to the mind, about which it is occupied, and on which it may, or does, beſtow its attention, and alſo any end which it either purſues or avoids, is called an *object*.

155[c]. *Subject* denotes that on which any action operates, or which admits a modification, or from which any relation proceeds or may be deduced.

155[d]. *Perfection* denotes any power, property, quality, or relation, which it is better to have than to want, and alſo that which is complete in its kind.

155[e]. *Faculty* is a name given to a claſs of powers or capacities, exiſting, or generally inherent, in the human mind.

156. *Cauſe*, ſtrictly ſo called, is a being by whoſe mere will a change of any kind happens: the reſulting change is called an *ef-*

fect,

fect, and is ſaid to be produced. The act of the will which cauſes the exiſtence of a ſubſtance, is called *creation*, and that which deſtroys it, *annihilation*. The act of the will which induces a modification, is ſaid to *produce* it; and in each caſe, the being by whoſe will it exiſts, or ceaſes to exiſt, is called the *efficient cauſe* of its exiſtence or deſtruction. The notion of cauſation neceſſarily follows the perception of any change.

157. The Supreme Being alone poſſeſſes the power of creation, or even of producing or altering the ſenſations, ideas, or emotions, in the human mind; but the mind itſelf eſſentially poſſeſſes the power of producing its volitions or nolitions, and its judicial determinations.

158. And *indirectly*, that is, by the intervention of, and in conformity with, certain laws, appointed by the Supreme Being, it can, at will, alter its ideas, and in many caſes its ſenſations, excite motion in its own body, and by it in other bodies; and thus may be conſidered as an efficient cauſe, though ſecondary.

159. But in a looſe or leſs rigorous ſenſe,

any thing that contributes to the exiſtence or modification of a being, or to the deſtruction of either, is called the *cauſe* of either reſpectively.

160. Now many things may contribute to the exiſtence of an effect. Thus, firſt, whatever excites the will to produce an effect, is called a *motive* to that volition, or to *influence* it: any mere mental excitement is called an *influence*, and the advantage expected, in conſequence of the volition, is called the *final cauſe* of the volition: both are called *moral cauſes*, and both are frequently the ſame.

161. Secondly, any object or event, whoſe occurrence or abſence becomes a motive on which a volition is grounded, is called the *occaſional* cauſe of that volition. Thus the neighing of Darius's horſe was ſaid to have been the occaſional cauſe of his election to the ſovereignty of Perſia.

162. So alſo, ſuch objects or events, whoſe occurrence or abſence remove an obſtacle to the operation of *natural* cauſes, become the *occaſional cauſes* of the effects produced by thoſe natural cauſes. Thus the rupture of a dyke in Holland, by admitting an inundation, is

the *occaſional cauſe* of the inundation, and the ravages it produces. So the want or abſence of a pilot, or his want of ſkill, is often the occaſional cauſe of a ſhipwreck.

163. The qualification of a perſon, or the poſition, figure, or other modification of an object, which enables him, or it, to obſtruct the operation of a cauſe, is called the *conditio ſine qua non*, or neceſſary condition. Thus the ſkill poſſeſſed by a pilot, and the exerciſe of that ſkill, are the conditions neceſſary to the avoidance of ſhoals. So opening the eyes is a neceſſary condition to ſeeing, &c.

164. And that which, acting blindly or neceſſarily under the *management and direction* of another cauſe, overcomes the reſiſtance of natural cauſes, or in general produce any effect, is called the *inſtrumental cauſe* of that effect. Thus machines are inſtrumental cauſes of the effects they produce.

165. Perſons, in conſequence of whoſe volitions bodies are acted on, and alſo bodies acting on other bodies, or appearing to do ſo, in conſequence of the laws by which corporeal nature is governed, are called *phyſical* or

natural causes: this appellation is commonly confined to the last-mentioned class.

166. Objects or events which are the effects of one prior cause, may themselves become the causes of other effects connected with the first, and thus a train of causes and effects may be indefinitely prolonged; the first is called the *primary*, *principal*, or *remote* cause, and the subsequent acting in conformity to his intention are called *subordinate* causes, and the last the *immediate* cause of the effect.

167. Causes are also *total* or *partial*, *single* or *conjoint*, *independent* or *dependent*. A horse drawing a weight not superior to his strength is the *total*, *single*, and *independent*, cause of its motion; and two horses drawing a weight, though superior to the strength of each, are *conjoint* causes of its removal, each *dependent* on the assistance of the other, and each the partial cause of the effect produced.

168. A man finding his house inconvenient, (the motive,) determines to build another more convenient (the final cause of his volition); for this purpose, (the subordinate

motive,)

motive,) he employs masons, carpenters, and smiths, who construct the edifice of which he is thus the principal efficient cause, and the artificers employed the subordinate partial efficient causes, each of his part of the building; the labourers that convey the materials are *animate*, instrumental causes, and the various tools used by the artificers, the *inanimate*, instrumental causes: thus it is, that a king is said to build cities, fortify towns, construct temples, &c. and a general to gain victories; but, with respect to the results of the liberal arts, the artists alone are called the efficient causes of their respective effects: thus the painter alone is the efficient cause of his picture, and the person who employs him is not said to have painted them: and the same may be said of many of the mechanical arts; the will of the person who employs the artists is perhaps only the *exciting cause*, or motive, of their several operations.

169. Causes may be considered as *intentional*, that is, acting with an intention to produce the effect; or as *accidental*, when the effect is neither designed nor even foreseen.

Other distinctions, as that of *adequate* and *inadequate*,

inadequate, as requiring no explanation, I omit.

170. Some Modern philosophers assert,* that a "cause cannot be defined to be any "thing but such previous circumstances as "are constantly followed by a certain effect; "the constancy of result making us conclude, "that there must be a sufficient reason in the "nature of things, why it should be produced "in those circumstances." How vague and inconsistent! it is not then in the previous circumstances that the reason of its production exists, but in the nature of things: *of things*, how vague! What things? What means *nature?* That nothing can exist without a cause; and that consequently every being must be connected with its cause, is evident: but the nature of no being whatsoever is in *reality* connected with an effect, or affords a sufficient reason for its existence, but that of the Divine Being, whose power is infinite; and that of mind, to which the powers of volition and of judgment are essential: but *apparently*, and in consequence of the Divine laws, the power of producing an effect in

* Priestly on Philos. Necess. p. 11. Mem. Berlin. 1761.

predetermined

predetermined circumſtances, is alſo lodged in bodies, as already ſaid: yet it can be diſcovered only by experience, or by reaſoning on the neceſſary reſults from the known eſſential properties of thoſe bodies, and the general economy of nature in certain circumſtances, where an oppoſition betwixt thoſe properties, and certain modifications, or ſtates, of other bodies take place. Mere conſtancy of ſucceſſion never evinces the cauſality of the object ſucceeded to, though the preſence or application of that object are neceſſary; thus, though days have ever more ſucceeded nights, no one imagines night to be the cauſe of day; though efferveſcence conſtantly precedes the ſolution of limeſtones in acids, yet it has never been conſidered as the cauſe, but rather as the *ſign* of the ſolution.

Axioms relative to cauſes.

171. Firſt, no being or modification, (except the Supreme) can exiſt without an efficient cauſe.*

An infinite ſeries of being (if ſuch a ſeries

* See my Diſſertation on Hume's Paradoxes. Mem. R. Iriſh Academy.

were

were poſſible,) whereof each had no cauſe, but that which immediately preceded it, involves a contradiction; for, firſt, it would by the ſuppoſition be cauſed, and conſequently it would be an infinite ſeries of *effects*; and, ſecondly, this ſeries of effects would, conſidered in its totality, have no cauſe; ſo that the whole, which is nothing elſe but a collection of the parts of which it conſiſts, would have a particular property, which none of the parts poſſeſs: as well may a *collection* of blind men ſee, though *each* be ſuppoſed blind.

172. Secondly, all cauſes precede their effects; for, if they coexiſted with their effects, they could not be ſaid to give them exiſtence.*

173. Thirdly, cauſes may in ſome meaſure be traced from their effects; for, as no being can be its own cauſe, every being preſuppoſes the power of producing it in ſome other being: whether that in which ſuch power exiſts be the cauſe of a given effect, circumſtances muſt determine; and if that power be lodged in more than one, which of them has acted? If many beings poſſeſs this power, that being may be deemed the cause whoſe known

* See my Eſſay on Duration, Mem. R. Iriſh Academy.

effects

effects in the given circumſtances are moſt analogous to thoſe whoſe cauſe is ſought, or of which ſome traces are diſcovered: thus, moſt metals being ſoluble in various acids, to diſcover which acid has effected a given ſolution of a given metal, among other methods which need not be mentioned here, if, in diſtilling the ſolution in a ſtrong heat, ſulphur is found ſublimed, the vitriolic acid is known to be the cauſe of the ſolution. Moral cauſes alſo, whether efficient, occaſional, or exciting, are frequently diſcoverable by analogy with the characters, circumſtances, and probable motives of the agents capable of producing them; and ſtill better by the traces of their action, that is, the impreſſion on the ſenſes of thoſe that were preſent; that is, on the ſenſes of the witneſſes, ſuppoſing theſe duly qualified to atteſt.

174. Fourthly, from cauſes known to exiſt, ſuitable effects may alſo be deduced, in appropriate circumſtances: upon this obſervation all voluntary actions are founded: and hence,

175. Fifthly, ſimilar cauſes are deemed to produce ſimilar effects on ſimilar ſubjects, and in ſimilar circumſtances; but the ſimilarity

in

in each case, if not entire, must be such as to contain nothing incompatible with the production of the effect.

176. Sixthly, dissimilar, nay contrary causes, frequently produce effects in many respects similar: thus the nitric acid, and also mercury, equally dissolve silver: thus alcohol may be produced by extreme cold, as well as by heat, and on living animal substances both impress sensations very similar; hence Virgil says, *frigus penetrabile adurit.*

177. Seventhly, the primary cause of a series of consecutive effects necessarily resulting from the first, must be deemed the cause of all of them; and hence the saying *qui est causa causæ est causa causati.*

178. *Manner.* The preparation, manipulation, contrivance, disposition of the subject, and the application of the instruments, machinery, &c. necessary or useful in the production of the effect, is called the *manner* in which it is produced. Thus the grinding and sifting of wheat, its reduction to dough, and finally baking, denote the manner in which bread is formed. Some effects are immediate, as *creation*, and therefore require no

manner, ſo that it were ridiculous to aſk *how* they were produced; but to produce natural effects, the Supreme Being has thought proper to appoint preparatory proceſſes leading to their exiſtence, which proceſſes are called the *manner* of their production.

So alſo the actions of the human mind, as volitions, and judicial aſſent or diſſent, are immediate; but to attain certain ends, preparation, inſtruction, method, attention, and deliberation, are neceſſary.

179. *Principle* denotes the original ſource, or cauſe, or a primary truth to which certain effects may be aſcribed, or from which certain truths may be deduced.

180. A *ſcientific principle* is that from which the phænomena or the operations relative to that ſcience may be deduced and explained; if not entirely, at leaſt in part, for there may be many principles.

To explain a phænomenon, is to aſſign, in intelligible terms, a cauſe that can produce it, or a law to which it conforms, and of which it is a conſequence.

181. A *Phyſical principle* is that which by its activity is the primary cauſe of ſubſequent

quent effects resulting successively from intermediate causes. So the weights of a clock are the principle of its motion, for they pull round the main wheel; this by its teeth catches hold of the next wheel, and so on. Attraction and repulsion are also primary physical principles, as certain affinities are of chymical phænomena.

182. So a *moral principle* is that from which many moral effects are deducible, as *self-love*, *sympathy*, *moral sense*, &c.

183. A *metaphysical principle* is that from which metaphysical truths are deducible.

184. The *subject of various modifications* is also frequently called a principle; thus the soul is often called the invisible principle of our thoughts and actions: thus, flax being first decorticated, then spun, then wove, is the fundamental principle of linen, and, after other operations, of paper.

185. *Chance* does not denote the absence of a cause, but merely the unknown cause of an event, or the undesigned effect of a known cause.

SECT. VII.

RELATIONS, ORDER, CONNECTION, NECESSITY, CONTINGENCY, LIBERTY, VOLUNTARY, SPONTANEITY.

186. The definition of a relation, its ſubject, foundation, and term, have already been explained: Logick, Vol. I. p. 131.

187. Firſt, it is impoſſible to have a notion of a relation, without having any notion of the things related; for a relation exiſting only in the mind, the mind cannot refer one thing to the other without knowing either, and the reaſon or foundation on which the reference is founded: ſo Locke, Lib. i. C. iv. ſec. 6.

188. Secondly, a ſubject is referred to its term as to its correlative, and not as abſolutely conſidered: thus the relation of a father to his ſon is founded on his being his *ſon*; and not as being John or James, &c. So ſubjects are related to their king, as *king*, and not as George or Edward, &c. and *vice verſa*.

189. Thirdly, the ſame ſubject may bear oppoſite relations to different terms: thus a

person may be older than one man, and younger than another.

190. Fourthly, some subjects of a relation have no correlative name in some languages, to which the relation may be referred, as *concubine*; but the term to which it is referred is understood to exist.

191. Fifthly, there is no one thing soever, whether idea, substance, mode, or relation, which may not be considered in reference to other things; that is, as the subject of a relation.—Locke, B. ii. C. xxv. sec. 7.

192. Most relations may be arranged under two general heads, and their opposites. These are,

Similitude.	*Dissimilitude.*	*Connexion.*	*Disconnexion.*
Identity.	Diversity.	Proximity in time or place.	Incoherency.
Equality.	Inequality.	Order.	Disorder.
Proportion.	Disproportion.	Causation.	Opposition.
Analogy.		Congruency.	Confusion.
		Association.	Excess.
		Succession.	Defect.
		Conformity.	
		Coincidence.	
		Dependence.	

193. *Order* denotes, either the gradation with which objects ſucceed each other, or an arrangement moſt agreeable to the attainment of a propoſed end.

194. *Connexion* denotes an aſſociation of things betwixt which any regular relation ſubſiſts.

194[b]. *Similitude* denotes the natural repreſentation of one thing by another: things are ſaid to be ſimilar, when the mind is in any reſpect ſo equally impreſſed by both, that one may in that reſpect miſtake one for the other.

195. *Neceſſity* denotes the certain exiſtence of an object or event, from the impoſſibility of its non-exiſtence; and as this impoſſibility may be either abſolute, or relative to the laws by which the exiſtence of events is governed, neceſſity is diſtinguiſhed into three ſorts, abſolute, phyſical, and moral.

196. *Abſolute* neceſſity is that which reſults from the utter impoſſibility of a thing being otherwiſe than it is: of this nature is the exiſtence of the Supreme Being; for as we know that all the beings with which we are acquainted have *begun* to exiſt, and could not have given exiſtence to themſelves, it is plain

that exiſtence is not eſſential to them; it were therefore impoſſible that they ſhould exiſt unleſs they received exiſtence from another being; and it were impoſſible that even this being ſhould exiſt, unleſs exiſtence were eſſential to him; and exiſtence being eſſential to him, it is impoſſible that he ſhould not exiſt, or in other words, his exiſtence is abſolutely neceſſary: this neceſſity is alſo called *metaphyſical*, as it does not relate to mere corporeal objects or events, but abſtracts from and ſoars above them to truths more univerſal; it is alſo called *mathematical*, becauſe the truths of mathematical axioms and demonſtrated propoſitions is ſo neceſſary, that their falſehood would involve a contradiction.

197. *Phyſical* neceſſity relates to corporeal nature, and denotes, firſt, the impoſſibility of the exiſtence of any object or event, otherwiſe than in conformity with the preordained laws of its exiſtence.

198. Secondly, the impoſſibility that objects or events ſhould not exiſt, when their exiſtence is agreeable to the known phyſical laws by which they are governed, conſtantly and univerſally.

199. Theſe laws are known by the conſtancy of an effect in ſimilar circumſtances, and on ſimilar ſubjects.

200. Some are *general*, relating to all corporeal objects, as the law of gravitation; and theſe are perfectly known, or nearly ſo.

201. Some are *particular*, as thoſe of electricity, magnetiſm, and chymical affinities.

202. Some are imperfectly known, being ſometimes, though rarely, modified by other laws that are unknown: ſuch are thoſe of the animal economy. Hence the uſual effects of the known laws cannot be expected with abſolute certainty—they are not *neceſſary*, but highly probable.

203. Events not conformable to the known laws, owing to their modification in unknown circumſtances, are called *extraordinary*, or *prodigies*.

204. Events evidently independent of any natural laws, and repugnant to ſuch of them as are perfectly known, are called *miracles*.

205. Hence phyſical neceſſity, where it really takes place, does not admit of degrees.

205[h]. If an end be neceſſary, the means re-

quiſite to obtain that end are equally neceſſary.—See Grot. on Matt. 173.

206. *Moral* neceſſity relates, firſt, to the laws by which free moral agents are governed, and of theſe there are three: firſt, that they cannot *judge* without diſcerning, or being otherwiſe ſatisfied of the exiſtence or non-exiſtence of a relation, betwixt the objects of their judgment; nor *will*, without an exciting cauſe of their volitions, that is, without a motive; ſecondly, that they do in every circumſtance prefer permanent pleaſure to permanent pain, if equally aſſured of their exiſtence.

207. Hence volitions, repugnant to theſe laws, are abſolutely impoſſible; and, on the contrary, thoſe that are conſentaneous to the inclinations of mankind, and unoppoſed by any motive, are abſolutely neceſſary.

208. Or, ſecondly, it denotes the *extreme probability* of an event that is conformable to the prejudices, habits, manners, and inclinations of mankind, even when reſiſted by oppoſite motives, whoſe truth is acknowledged; but not the *abſolute* impoſſibility of a different or an oppoſite event, in all times

and

and circumſtances; for of ſuch oppoſite events, in a courſe of ages, many inſtances occur, particularly where ſuperſtition, fanaticiſm, or even true religion, prevail. Witneſs the conduct of Regulus, and the Athenian judgment: but ſuch events are juſtly deemed *extraordinary*, or *prodigious*.

209. Hence moral neceſſity, where it denotes only an extreme probability, admits of degrees.

210. *Contingency* denotes the poſſibility that an object or event may exiſt or not exiſt. Hence it requires, firſt, that a cauſe adequate to the production of its exiſtence ſhould alſo exiſt, as no being can exiſt of itſelf; and, ſecondly, that neither its conſtitution or deſtruction ſhould involve a contradiction or repugnancy, neither in itſelf, nor to any thing elſe already in exiſtence.

211. But it is not neceſſary that its exiſtence and nonexiſtence ſhould be equally poſſible, for either may be more or leſs probable or improbable; and, therefore, ſtrictly ſpeaking, it admits of degrees.

212. *Liberty* belongs to rational agents only, and denotes the mode or manner in

which they act, or have the power of acting or not acting.

213. As the power of acting (though it resides also in some cases in the understanding) is commonly denominated the faculty of *willing*, hence it is that liberty commonly relates to the mode or manner in which that power is exercised.

214. We must also remark, that the actions here meant are those of the will itself, and not those which it may command, as the motions of its own body, or of other bodies.

215. We have already said, that the will cannot act without a motive or exciting or occasional cause; for, to act, it must have some end or purpose in view: this we know by the slightest attention and recollection.

216. But if *only one* motive to action exists, we must act according to its direction; for, by the supposition, there is no motive or reason to oppose it.

217. Liberty then, when perfect, consists in the complete and equal power of acceding to, consenting or rejecting, that is, *willing* or not *willing*, a proposed measure, or of electing either of the measures proposed to the mind,

if more than one be preſented to its conſideration.

218. Such liberty reſults from an exact equality of the motives that urge to, or diſſuade from, a propoſed reſolution. Actions proceeding from ſuch a power are ſaid to be perfectly free.

219. Motives then, to contrary volitions, either both attract to oppoſite or different objects (as pleaſure and virtue, in the choice of Hercules), or ſome allure to, and others diſſuade from, the ſame object or ſpecies of action. In each caſe the mind, on a joint view and conſideration of each, muſt be perfectly indifferent to either, elſe the determination to reject the one, and embrace the other, cannot be ſaid to be perfectly free.

220. I know that many in ſuch a caſe conſider a volition to be impoſſible, and quote the fable of Buridanus's aſs; but they are deceived. In inanimate bodies, urged by equal oppoſite forces, motion indeed would be impoſſible, becauſe the principle of action is external, and the external forces counterbalance each other; but in the mind the power of acting is internal, and as the motives propoſe

pofe fignal advantages, it may adhere to that propofed by either. If the choice were offered me of two rouleaus of 100 guineas each, placed on a table at equal diftances from me, I furely would not hefitate, much lefs abftain from, taking either, well knowing that one was as good as the other.

221. In proportion as the motives to one fide of a propofed choice are lefs urgent, or appear lefs weighty than thofe on the other, the liberty or freedom of the will is more imperfect; nay, if the motives on one fide are unoppofed by any on the other, then, indeed, the will is neceffitated.

222. An oppofition of motives being fuppofed, the moft urgent (that is, thofe whofe rejection is attended with moft uneafinefs,) are either confonant to the dictates of the underftanding, or the fuggeftions of the moral fenfe; and then the acts of the will, grounded upon them, are wife and laudable; or they are repugnant to the dictates of either, and then they are foolifh or criminal.

223. But motives the moft urgent, fuch as the inclinations, paffions, and defires of mankind, are not always the moft prevalent; thofe that

that are leſs urgent are ſometimes moſt perſuaſive. Actions juſt and proper, flowing from ſuch motives, are frequently the moſt meritorious; ſuch as the ſuffering of the martyrs. And, on the contrary, ſuch actions as are unjuſt and wicked, are moſt criminal and flagitious; ſuch as the refuſal of a tortured criminal to diſcover his accomplices. In ſuch caſes the freedom of the will, though manifeſtly impaired, is not extinct.

224. Hence we ſee why the greater the temptation, that is, the more urgent the motive to commit a crime, the leſs criminal is its commiſſion in the ſenſe of all mankind; and, on the contrary, the more meritorious its avoidance. Thus, if Artaxerxes had put his mother to death, who had poiſoned his wife, and who had tortured the ſlave that ſaved his life, he would indeed have been criminal; but infinitely leſs ſo than Nero, who murdered his mother without ſuch provocation. So the conduct of David, in reiteratedly ſparing the life of Saul, who ſo often had lain in wait for his, was highly meritorious.

225. And, on the contrary, the more inſignificant, wanton, or extravagant, the motive

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to a crime, the more flagitious is its commiſ-ſion. Thus the crime of a French nobleman, who ſhot a ſlater mounting a ladder, to ſhew he could ſhoot flying, was more atrocious than that of a common murderer.

226. Hence it is plain, that motives are barely the occaſional and exciting, not the efficient, cauſes of our volitions; for if they were, the moſt urgent would always be obeyed. Neceſſarians think that the motives yielded to muſt have been the ſtrongeſt, which is manifeſtly begging the queſtion: this, however, they ſay, is judging of cauſes by their effects, a mode of reaſoning indeed perfectly juſt in phyſics, but not ſo in morals; for experience ſhews that the motives of ſelf-love, ſelf-intereſt, ambition, and the gratification of paſſions; gratitude, pity, &c. are by far the moſt urgent, and that a line of conduct conformable to their dictates is by far the moſt probable; and yet they are ſometimes reſiſted, even when unoppoſed by motives equally urgent. Neceſſarians reaſon juſt as the vulgar do, that the moſt ſucceſsful general is always the moſt able; yet the beſt judges are now agreed, that Hannibal, though de-

feated,

feated, was at leaſt as able a commander as Scipio, who defeated him.

227. The definitions of liberty, given by neceſſarians, are inaccurate. According to Hobbes, "liberty is the abſence of all impe-"diments to action, that are not contained in "the nature and intrinſic quality of the agent. "So we ſay, he that is tied wants the liberty "to go, becauſe the impediment is not in "him, but in his bands; whereas, we ſay not "ſo of him that is ſick or lame, becauſe the "impediment is in himſelf." I ſhould, however, judge, that a perſon, either very ſick or very lame, may be ſaid not to have the liberty of going, for he has not the power; beſides, by action, volition ſhould be underſtood.

228. Others define liberty to be the power of *doing* what one pleaſes.* This definition alſo is inaccurate; for the queſtion relates to the liberty of *willing*, and not merely of acting. "Every one (it is ſaid) may turn his "thoughts to what ſubject he pleaſes." *To what ſubject he pleaſes* means, I ſuppoſe, *to what ſubject he chuſes.* Now, in the neceſſa-

* Prieſtley on Neceſſity, p. 2.

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rian ſyſtem, *may* ſignifies *muſt*: his election is neceſſary, and therefore he ſhould ſay, every one muſt turn his thoughts to what ſubject he *muſt* pleaſe, or chuſe to turn them to.

229. Neither is Mr. Locke's notion of liberty exactly correct. He tells us,* that "liberty is the power of an agent to do or "forbear any particular action, according to "the determination or thought of the mind, "whereby either of them is preferred to the "other." But the point in debate is not, whether the agent has the power of acting, or not acting, according to the determination of his will; for every one knows that power may not exiſt, as many actions are impoſſible: a man in chains cannot walk, nor can any man fly, let his mind determine as it may. But the point in queſtion here is, whether he *can prefer* acting to forbearing to act, or the contrary: this the aſſertors of liberty affirm, with the limitations already mentioned, and the neceſſarians deny.

230. He alſo thinks,† that agents alone can be ſaid to be free; and that it is ridiculous

* B. ii. C. xxi. ſec. 8.

† Sec. 14 and 16, B. ii. cap. xxi.

to

to aſk, whether the will be free or not, as the will is only a power, and liberty is alſo a power, which cannot be the modification or power of another power; but he forgets that a power may be exerted, either neceſſarily or freely, and liberty is not a power diſtinct from that of the will, but rather a modification, or particular mode, of its action. A man in extreme pain, not urged by any oppoſite motive, neceſſarily wills its ceſſation; and, conſequently, both freedom and neceſſity are applicable, in different circumſtances, to that faculty, or power of acting of the agent, to which a certain claſs of objects is referred, and which is called the will.

231. An action is called *ſpontaneous* when it ariſes from mechanical, inſtinctive, or other animal or chymical cauſes, without any determination of the will to produce it: as growth, nutrition, circulation of the blood, &c.

232. A *voluntary act* is that which is performed with a ſufficient knowledge of its nature and conſequences, and not extorted by a well grounded fear of an illegal infliction of corporeal puniſhment, loſs of life or limb, impriſonment, or violation of property. Such

actions

actions must be deemed voluntary, though often accompanied with reluctance: as when a man sells his estate to preserve the liberty of his person, &c.; or consents to the loss of a limb to save his life; or casts his property into the sea to avoid a shipwreck.

233. An *involuntary* act is that which is derived from, or accompanied with, an insufficient knowledge of its nature and circumstances, or consequences, (see Grotius on St. Matt. 255); or from a well-grounded apprehension of danger to life, limb, or property, illegally or fraudulently impressed: as the delivery of money to a robber, for fear of death or other bodily mischief. Actions of the former kind, arising from ignorance, may be criminal, when the ignorance itself is culpable; but the latter are so, only when death should be preferred to the proposed act. In the first case the action is involuntary; in the second it is mixt, being partly voluntary and partly involuntary.

SECT. VIII.

SPACE AND DURATION.

234. Nothing has contributed more to the growth and diffuſion of that general ſcepticiſm, ſo prevalent in the laſt century, with reſpect to all queſtions that cannot be decided by the immediate teſtimony of the ſenſes, than the inextricable difficulties that were ſuppoſed to attend the nature of objects moſt familiar to all mankind, and unheſitantly conceived to be thoroughly underſtood; for it ſeemed natural to conclude, that if, upon examination, we find an exact notion, even of theſe, impoſſible to be attained, we have reaſon to ſuppoſe, that other objects, with which we are not ſo well acquainted, are placed beyond the reach of human faculties: thus argued Bayle (Zenon), thus Hume reaſoned. Now, certainly, no objects are more familiar to us than ſpace and duration; and, in perplexing the notions of theſe, they have exhauſted the whole force of their ſubtlety. If, on the contrary, it can be ſhewn, that the notions of theſe are perfectly plain and intelligible, in

the ſenſe in which they are univerſally taken; and that the abſurdities, that have occurred in explaining them, might eaſily be avoided, by only adhering to their known ſignification, one ſtumbling-block in metaphyſical inquiries will be removed.* This, then, is the purport of the preſent paper. But, moreover, to ſhew the neceſſity of inveſtigating ſubjects, which ſeemingly require no diſcuſſion, the difficulties that occurred on conſidering theſe, with the various opinions they ſuggeſted, muſt previouſly be ſtated.

235. The different ſyſtems of the Epicureans and Peripatetics, gave the firſt occaſion to the controverſies concerning the nature of ſpace. The Epicureans admitted a vacuum, or empty ſpace, as one of their firſt principles. The Peripatetics allowed, indeed, the poſſibility of a vacuum, but denied its exiſtence. Des Cartes, in examining the queſtion, denied even its poſſibility; aſſerting, that ſpace neceſſarily implies extenſion: but a mere nothing, or nonentity, ſuch as a perfect vacuum,

* It is ſtrange, that ſo eminent a metaphyſician as Condillac ſhould ſay, that we know nothing of the nature of ſpace or duration. Art. de Penſer, p. 115, in 12mo.

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if it exiſted, muſt be allowed to be, can have no properties, and, conſequently, cannot be extended; for it would be abſurd to ſay, for inſtance, ſo many *acres of nothing*. His diſciples further inſiſted, that ſpace muſt be either a ſubſtance, or the modification of ſome ſubſtance, as, between theſe, nothing intermediate can be ſuppoſed to exiſt: but *ſpace* is not a mode of any ſubſtance, therefore it muſt itſelf be a ſubſtance, and, conſequently, can never be ſuppoſed empty.

236. To evade the force of this reaſoning, the Peripatetics and Epicureans made different replies. The former ſaid, that empty *ſpace* is a mere capacity or poſſibility of receiving bodies, and that its extenſion is only the poſſible extenſion of ſuch bodies as may be placed in it. But this anſwer was ſoon found to be unſatisfactory; for the ſpace, *actually* exiſting between two diſtant bodies, would remain unaltered, even if all the intervening bodies were annihilated. Moreover, the capacity of receiving bodies is merely the conſequence of the vacuity of ſpace, and not ſpace itſelf. The Epicureans, as Gaſſendi and Bernier, followed by Le Clerc, ſuppoſed it to be a

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peculiar kind of being, which poſſeſſed no other property but extenſion. It was not, therefore, a ſpiritual ſubſtance, this not being extended, nor a material being, as it poſſeſſed no ſolidity, but a being *ſui generis*. This opinion appearing as untenable as the foregoing, from whence it differed only by being more fully explained, was embraced by no one elſe.

237. David de Rodon, an eminent Calviniſt profeſſor at Niſmes, ſome time before the year 1660, and poſſibly during the life of Des Cartes, ſtruck with the abſurdity of ſuppoſing any thing real and eternal beſides God, advanced a very different opinion; as I find, by a letter from Bayle to La Coſte, 4 Bayle, Oeuvres Poſth. 845. He maintained, that ſpace was nothing elſe than the Divine immenſity. This opinion was embraced by Otto Guericke, about 1670, as Leibnitz thinks, and afterwards by the celebrated Dr. Samuel Clarke. It appears in the firſt edition of his Sermons in 1706, and more explicitly in his ſeveral replies to Dr. Joſeph Butler in 1713, and his correſpondence with the celebrated Leibnitz in 1715, as I ſhall preſently mention;

mention; and was alſo long before obſcurely hinted by many of the ſcholaſtics. In the meantime, that is, about the year 1690, Leibnitz propoſed a new ſyſtem, namely, that of Monads, or ſimple ſubſtances abſolutely unextended, but from whoſe diſpoſition or order, with reſpect to each other, the *appearance* of ſpace reſulted: a ſyſtem ſo ingenious and well connected, that for many years it met the approbation of the moſt diſtinguiſhed philoſophers in Germany, and the admiration of the reſt of Europe.

238. A few years after, Mr. Locke publiſhed his ineſtimable Eſſay on the Human Underſtanding; yet his ſentiments concerning ſpace are confuſedly, and rather inconſiſtently, ſtated. For, firſt, without giving any definition of ſpace, he divides it into ſolid and empty. He tells us, we acquire the idea of the firſt when we conceive *it* ſo taken up by a ſolid ſubſtance as to exclude all other ſolid ſubſtances, and hinder two other bodies, moving towards each other in a ſtraight line, from coming into contact with each other.—But, if we conceive two bodies at a diſtance to approach each other, without touching or diſ-

placing any ſolid thing until their ſurfaces come to meet, we thus acquire the idea of ſpace without ſolidity, or pure ſpace. Lib. II, cap. iv. ſec. 2, 3. And (ſec. 5,) he adds, "the extenſion of body being nothing but the "continuity of ſolid, ſeparable, moveable "parts, the extenſion of ſpace is that of un-"ſolid, inſeparable, and immoveable parts."— Here he plainly aſſerts, that pure ſpace is extended, and conſiſts of immoveable and inſeparable parts.

239. In his 13th chapter, he ſtates the idea of ſpace more accurately; for he ſays it is the *diſtance* between any two bodies, or between the parts of the ſame body: that, if it be conſidered only *lengthways*, without conſidering any thing elſe between, it is called *diſtance*; but, if conſidered in length, breadth, and thickneſs, it may be called *capacity*. The term *extenſion* is uſually applied to it, in what manner ſoever it is conſidered, ſec. 2 and 3. —But, in ſec. 4, he no longer conſiders ſpace as *diſtance*, but tells us, "that each different "diſtance is a different modification of ſpace." —Yet, as different diſtances are rather different relations betwixt the diſtan bodies, I do

do not well underſtand how they can be called modifications of ſpace; modification being a term uſually applied to ſubſtances, and not to relations.

240. Sect. 16, he aſks thoſe, who inquire whether ſpace be body or ſpirit, who told them, that there could be no other being but body and ſpirit? And, if they again inquire, "whether this ſpace be a ſubſtance or an accident, he fairly tells them he does not "know." From all which, it is plain, he conſidered ſimple pure ſpace as ſomething really exiſting, and diſtinct from diſtance.

241. And, accordingly, ſec. 21, he ſays, "if body be not ſuppoſed infinite, which "he thinks no one will affirm, he aſks, whe- "ther, if God placed a man at the ex- "tremity of corporeal beings, he could not "ſtretch his hand beyond his body? If he "could, then he would put his arm where "there was before ſpace without body." And, chap. xvii. ſec. 4, he adds, "ſo far as "body reaches, ſo far no one can doubt of "extenſion; and, when we are come to the "utmoſt extremity of body, what is there "that can ſatisfy the mind, that it is at the

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"end of ſpace, when it perceives it is not?" and finally concludes, "that ſpace is in-"finite." And, ſec. 20, he denies, that the exiſtence of matter is any way neceſſary to the exiſtence of ſpace.

242. In 1713, Doctor Berkely firſt publiſhed his immortal work, on the Principles of Human Knowledge; in the cxvi § of which he aſſerts, that pure ſpace is nothing more than the poſſibility of motion, without the leaſt reſiſtance; and that, if all bodies were annihilated, there could be no motion, and, conſequently, no ſpace. And thus he ſays, (ſec. cxvii.) "we free ourſelves from that "dangerous dilemna, to which ſeveral ima-"gined themſelves reduced, to wit, of think-"ing that real ſpace is God; or elſe, that "there is ſomething beſides God, eternal, un-"created, infinite, indiviſible, immutable; "both which may juſtly be thought per-"nicious and abſurd notions." This opinion was afterwards adopted by Dr. Doddridge, in his Lectures. p. 139; and by Mr. Condillac, *Art. de Penſer*, chap. viii.

243. At the latter end of the ſame year, an anonymous writer, ſtyling himſelf a Gentle-

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man of Gloucesterſhire, but thought to be Dr. Joſeph Butler, repreſented to Dr. Clarke, ſome difficulties, which had occurred to him, in the Doctor's excellent treatiſe, entitled, *a Demonſtration of the Being and Attributes of God*; for having there aſſerted, that the neceſſity of the Supreme Being muſt have exiſted *every where*, as well as always, Dr. Butler informed him he did not perceive any connexion between ubiquity and neceſſary exiſtence. Dr. Clarke replied, that he conſidered ſpace as a *mode* of the ſelf-exiſting ſubſtance; and, being evidently neceſſary itſelf, proves that the ſubſtance, of which it is a property, muſt alſo be neceſſary. Nay, he adds, that extenſion is neceſſary to the exiſtence of every being. In his third reply, he is ſtill more explicit: for he aſſerts, that all other ſubſtances are *in* ſpace, and are penetrated by it; but the ſelf-exiſting ſubſtance is not in ſpace, nor penetrated by it; but is itſelf, as if it were the *ſubſtratum* of ſpace, the ground of the exiſtence of ſpace and duration. Dr. Butler, in his fourth Letter, owns himſelf convinced of what he at firſt doubted, that a neceſſary being muſt exiſt

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every where; and Dr. Clarke, in his anſwer to that letter, approaches much nearer to the truth than he had before done, though ſtill far from it. He ſays, " the idea of " ſpace is an abſtract or partial idea of a " certain quality or relation, which we evi- " dently ſee to be neceſſarily exiſting; and, " yet, (not being itſelf a ſubſtance,) neceſſa- " rily preſuppoſes a ſubſtance, without which " it could not exiſt."

244 In his fifth Letter, Dr. Butler denies, that ſpace can be ſuppoſed a property or modification of the Divine ſubſtance; for, if that were annihilated, ſtill the idea of ſpace would remain; and owns himſelf at a loſs to define the nature of ſpace. To which Dr. Clarke replies, " that, ſince ſpace neceſſarily " remains, even after it is ſuppoſed to be ta- " ken away, and is not itſelf a ſubſtance, as " it is plain it is not, then the ſubſtance, on " whoſe exiſtence it depends, will neceſſarily " remain alſo, even after it is ſuppoſed to be " taken away; which ſhews the ſuppoſition to " be impoſſible and contradictory."

245. Thus that correſpondence ended. But, in an anſwer to another Gentleman, Dr. Clarke

Clarke aſſerts, that infinite ſpace is infinite extenſion; and, that to ſuppoſe it finite is an expreſs contradiction. And, that "they "who remove the idea of infinity, by ſuppoſing ſpace to be nothing but a relation "between two bodies, are guilty of an abſurdity, by ſuppoſing that which is nothing "to have *real* quantities; for the ſpace betwixt two bodies, is always unalterably juſt "what it was; and has the ſame dimenſions, "quantity, and figure, whether theſe, or any "other bodies, be there, or any where elſe, "or not at all."—To ſet bounds to ſpace, is to ſuppoſe it bounded by ſomething which itſelf takes up ſpace; and that is a contradiction.

246. But the Doctor was engaged in a much more animated correſpondence, on the nature of ſpace, ſhortly after. It aroſe on the following occaſion. Leibnitz, irritated by the deciſion of the Royal Society of London, in favour of Newton, on the diſputed queſtion, whether he or Sir Iſaac was the diſcoverer of the differential or fluxionary calculus, criticiſed, with much aſperity, ſome parts of Sir Iſaac's philoſophy, and particularly

cularly his ſentiments on the nature of ſpace. This cenſure he conveyed in a letter to the Princeſs Caroline of Wales, afterwards queen-conſort of George II. who communicated it to Dr. Clarke, and engaged him to anſwer it. His anſwer ſhe tranſmitted to Leibnitz, and became the medium of the correſpondence that enſued betwixt theſe two great metaphyſicians. Of their ſucceſſive anſwers and replies, I ſhall give a brief extract.

247. *Clarke.* Space, finite or infinite, is abſolutely indiviſible, even in thought. To imagine its parts moved from each other, is to imagine them moved out of themſelves; and yet ſpace is not a mere point.

248. *Leibnitz.* Space cannot be a real, abſolute being, otherwiſe it ſhould be eternal and infinite. But, as it conſiſts of parts, it is not a thing that can belong to God. Space is ſomething merely relative, as time is; it is the order of co-exiſting things; as time is of ſucceſſive things. If ſpace were an abſolute being, ſomething would have happened, for which no ſufficient reaſon can be aſſigned: for ſpace is abſolutely uniform;

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and, without the things placed in it, one does not differ from another: therefore there can be no reaſon, why God ſhould have placed bodies, in ſpace, after one particular manner, and not otherwiſe. But if ſpace is nothing elſe, but that *order* or *relation*, and *nothing at all* without bodies, but the *poſſibility* of placing them; then, two ſtates, to wit, that which now is, and another, ſuppoſed the the reverſe, would not at all differ from each other. Their difference would only be found, in our chimerical ſuppoſition of the reality of ſpace: but, in truth, one would be exactly the ſame as the other; they being abſolutely *indiſcernible* (undiſtinguiſhable), and, conſequently, leaving no room to inquire for the reaſon of the preference of one to the other.

249. *Clarke.* Undoubtedly, nothing happens without a ſufficient reaſon, why it *is*, rather than *not*; why thus, rather than otherwiſe: but, in things perfectly indifferent, *mere will* is that ſufficient reaſon; as, in the preſent inſtance, why matter was created in one place, rather than in another; all places being originally alike. And the caſe is the ſame, even though ſpace were nothing real, but

but only the mere order of bodies: for it would ſtill be different, whether three equal particles ſhould be placed in the order a, b, c, or in the order b, a, c; for different ſpaces are equally diſtinct, though perfectly alike. Beſides, if ſpace were nothing real, but the mere order of bodies, it would follow, that, if the earth, ſun, and moon, had been placed where the remoteſt fixed ſtars now are, and in the ſame order and diſtance, with regard to one another, as they now are, they would then be in the ſame place too as they are now; which is an evident contradiction.

250. Space is not a being, an eternal and infinite being; but the property, or conſequence, of a Being, eternal and infinite. Infinite ſpace is immenſity, but immenſity is not God. Infinite ſpace is *one*, abſolutely and eſſentially indiviſible. To ſuppoſe it parted, is a contradiction in terms, as there muſt be ſpace in the partition itſelf; which is to ſuppoſe it parted, and not parted, at the ſame time. The immenſity, or omnipreſence of God, is no more a diviſion of his ſubſtance into parts, than his duration is a diviſion of his exiſtence into parts. There is no difficulty

here,

here, but from the figurative abuſe of the word *parts*.

251. If ſpace were nothing but the order of co-exiſting things, it would follow, that if God ſhould move, in a ſtraight line, the whole material world, with any degree of velocity ſoever, yet it would ſtill continue in the ſame place, and nothing would receive a ſhock on the ſudden ſtopping of the motion.—Further, ſpace is a *quantity*, which order and ſituation are not.

252. To argue, that, becauſe ſpace is uniform, and one part does not differ from another, therefore, bodies created in one place, if they had been created in another, ſuppoſing them to keep the ſame ſituation with regard to each other, would ſtill be in the ſame place as before, is a manifeſt contradiction.

253. *Leibnitz.* To ſuppoſe two things indiſcernible, is to ſuppoſe the ſame thing under two names; therefore, to ſuppoſe that the univerſe could have had, at firſt, another poſition, or place, than that which it actually had; and yet that all the parts ſhould have had the ſame ſituation among themſelves, as that which they actually had; ſuch a ſuppoſition

position is an impossible fiction.—If space be a property, it must be the property of some substance; but of what substance will bounded empty space be the property?

254. If infinite space be immensity, finite space will be the opposite to immensity; it will be mensurability, or limited extension. Now, extension must be the affection of something extended: but, if that space be empty, it will be an attribute without a subject; an extension without any thing extended.

255. If space be an absolute reality, far from being a property opposed to substance, it will have a greater reality than substances themselves. God cannot destroy it, nor even change it. It will be immense, immutable, and eternal.—To say, that God can cause the whole universe to move forward in a right line, or any other line, without making any other alteration in it, is a chimerical supposition: for two states, indiscernible from each other, are the same state; and, consequently, it is a change without any change.

256. *Clarke*. Two things, by being exactly alike, do not cease to be *two*: the parts of

time are exactly alike, yet two instants are not the same instant, nor are they two names of the same instant.

257. Extramundane space (if the world be finite) is not imaginary.

258. Space, void of body, is the property of an incorporeal substance. It is not bounded by bodies, but exists equally within and without bodies. It is not enclosed between bodies; but bodies, existing in unbounded space, are themselves only terminated by their own dimensions. Void space is not an attribute, without a subject; for God is certainly present, and possibly many other substances, which are not matter. Parts, in the corporeal sense of the word, are separable: but infinite space, though it may, by us, be *partially* apprehended, that is, may in our imagination be conceived, as composed of parts; yet these parts, (improperly so called,) being essentially indiscerptible and immoveable, are not partible, without an express contradiction in terms.

259. If the world be finite, it is moveable by the power of God. Two places, though exactly alike, are not the same place: nor is

the motion or reſt of the univerſe the ſame ſtate, any more than the motion or reſt of a ſhip is the ſame ſtate, becauſe a man ſhut up in the cabin, perceives it not; but, upon a ſudden ſtop. it would have other real effects. Space is the place of all things, and of all ideas; as duration is the duration of all things, and of all ideas.

260. *Leibnitz.* The parts of *time* or *place*, conſidered in themſelves, are ideal things, and therefore perfectly reſemble one another, like two abſtract units; but it is not ſo with two concrete units, or two real times, or two ſpaces filled up, that is, truly actual.

261. If ſpace be the property of the ſubſtance which is in ſpace, the ſame ſpace will, ſometimes, be the property of one body, and ſometimes of another. If the author deny, that limited ſpace is a property of limited things, he muſt alſo deny, that infinite ſpace is a property of an infinite thing.

262. Spaces are ſometimes empty, and ſometimes filled up; therefore, there will be, in the eſſence of God, parts ſometimes empty, and ſometimes full, and, conſequently, liable to a perpetual change.

263. God's immenſity makes him actually preſent in all ſpaces; but, now, if God is in ſpace, how can it be ſaid, that ſpace is in God? We have often heard, that a property is in its ſubject; but never, that a ſubject is in its property.

264. The author departs from the received ſenſe of words; maintaining, that ſpace has no parts, becauſe its parts are not ſeparable. But they may be aſſigned in ſpace, either by the bodies that are in it, or by lines and ſurfaces, drawn and deſcribed in it.

265. A man in a ſhip may not perceive its motion. The reality of motion does not depend on its being obſerved; but it does on the poſſibility of its being obſerved. There can be no motion, where no change can be obſerved.

266. As to the objection, that ſpace is a quantity, and that ſituation and order are not ſo; I anſwer, that order has its quantity: there is diſtance, there is interval. Relative things have their quantity, as well as abſolute ones; for inſtance, ratios, or proportions.

267. Space is not the place of all things, for it is not the place of God; nor can I ſee

 how

how it can be ſaid to be the place of ideas, for ideas are in the mind.

268. *Clarke.* It was affirmed, that the motion of the univerſe would produce no change at all: yet no anſwer was given to the argument, that a ſudden increaſe, or ceſſation of the motion of the whole, would give a ſenſible ſhock to all the parts. And no way is ſhewn to avoid this abſurd conſequence, that the mobility of one body depends on the exiſtence of other bodies.

269. The ſpace occupied by a body is not the extenſion of the body; but the extended body exiſts in that ſpace. There is no ſuch thing, in reality, as bounded ſpace: we only imagine, or fix our attention on what part we pleaſe. It does not paſs from ſubject to ſubject, but is always, invariably, the immenſity of one and the ſame *immenſum.* God ſuffers no change by the variety and changeableneſs of things; as St. Paul ſays, Acts, xvii. 28. *in him all things move,* and have their being.

270. God does not exiſt in ſpace, but his exiſtence cauſes ſpace. Space is not abſolutely nothing; for of nothing there is no quantity,

quantity, no dimenſions, no properties. Nor is it a mere idea, for no idea of ſpace can be framed larger than finite. And yet reaſon demonſtrates, that it is a contradiction that ſpace ſhould not be actually infinite. Nor is it a bare relation of one thing to another, ariſing from their ſituation or order; becauſe ſpace is a quantity, which relations (ſuch as ſituation and order) are not.

271. If it were true, that ratios and proportions were quantities, yet it would not follow, that ſituation and order, which are relations of a different kind, would be quantities alſo. But, ſecondly, proportions are not quantities, but the proportions of quantities. A proportion is not a greater or leſs quantity of compariſon or relation, but the compariſon of a greater or leſſer quantity. Space is the place of ideas, becauſe it is the place of the ſubſtances themſelves, in whoſe underſtandings ideas exiſt.

272. Death prevented Leibnitz from replying to theſe laſt paragraphs; but the objections they contain were replied to, by Lewis Philip Thummigius, in 1722. I have not as yet been able to procure his annotations.

273. In England this controversy was again revived, in 1731, by Dr. Law, late Bishop of Carlisle, in his notes on Archbishop King's Essays on the Origin of Evil, who denied the reality of space; and was soon after answered (as is supposed) by Dr. Gregory Sharpe, who supported Dr. Clarke's opinion. This answer Dr. Law endeavoured to invalidate, in his notes to a second edition of King's Essay; and to his objections Sharpe replied.

274. The new combatants treated this subject in a manner somewhat different from the preceding. Of this I shall now give a summary view.

275. *Law.* I can form no other notion of space, than either, first, as the mere negation or absence of matter; or, secondly, as the extension of body, abstractedly considered, as separate from any particular body.*

276. Of space, considered as the absence or negation of matter, we may have a positive

* He adds a third mode of conceiving it, which is not, indeed, his own, but rather Cudworth's; namely, that of a subject, or substratum of extension, *in abstracto*. Of this, as too subtile, and scarcely intelligible, I shall take no notice.

idea,

idea, as Mr. Locke has fully ſhewn, (B. ii. C. viii. ſec. 4, 5.) as well as of ſilence, darkneſs, and many other privations. But, to argue from ſuch an idea, that ſpace is ſomething external, and has a real exiſtence, is as little reaſonable as to ſay, that, becauſe we have an idea of darkneſs different from that of light, therefore darkneſs muſt be ſomething poſitive, and has as real an exiſtence as light has.

277. To ſay that ſpace muſt have exiſtence, becauſe it has ſome properties; for inſtance, *penetrability*, or the capacity of receiving bodies; ſeems to me the ſame as to ſay, that ſilence muſt be ſomething, becauſe it has the property of admitting ſound.

278. To attribute extenſion or parts to ſpace, according to the firſt notion given of it, would be the ſame as to talk of the extenſion or parts of *abſence*, or any other privation.

279. *Sharpe*. To ſuppoſe that ſpace is nothing but the abſence of matter, is abſurd; for if we ſuppoſe two walls not to touch one another, there muſt neceſſarily be ſomething between them, otherwiſe there would be no

 difference

difference between touching and not touching.

280. Whatever is indued with properties must actually exist. Now space has the property, or capacity, of receiving all bodies. Darkness, abstractedly considered, has not the property of admitting light, nor silence that of admitting sound; but darkness is rather that part of space that is free from light.

281. Thus far the debate was intelligibly carried on, and some new matter advanced. The remainder consists chiefly of a repetition of the arguments already adduced in the Leibnitzian correspondence, and therefore requires no further notice.

282. We may now state the true notion of space, which is so obvious, that it is surprising it should have escaped the notice of these profound metaphysicians.

283. Space is nothing more or less than the relation of two or more distant bodies to each other, or of the distant parts of the same body to each other.

284. All relations are merely mental, but the objects related are real. The foundation

of

of this relation is the ſtandard extenſion, or the number of ſuch extenſions, as inches, feet, miles, &c. as we find or conceive neceſſary to reach from one body to the other. Thus all that can with truth be affirmed of ſpace may clearly be conceived.

285. Its primary notion is not the capacity of receiving bodies; this is merely a conſequence inferred from diſtance: in any other point of view this capacity is merely fictitious. Otherwiſe, before any body was created, a capacity for receiving bodies exiſted; that is, when nothing whatſoever exiſted. As well might it be ſaid, that a capacity of receiving ſpirits exiſted before any ſpirit was created. From what principle this capacity is inferred will preſently be ſeen.

286. The notion of *diſtance* is originally acquired through the ſenſe of feeling. By the repetition of tactile ſenſations, from one part of the body to another, we gain the notion of *extenſion*, which conſiſts in nothing elſe than in the number and continuity of tactile ſenſations, either perceived, or conceived to be perceptible, betwixt two or more objects. The difference between the firſt and

laſt of theſe ſenſations is what is called *diſtance*. Neither the knowledge of diſtance, nor conſequently that of extenſion, is originally gained by the ſight, but gradually learned by experience of the connexion betwixt diſtant objects, previouſly known by tact and viſual appearances, and the motion and feelings of the eye itſelf; as Dr. Berkley has clearly ſhewn, in his admirable Eſſay on Viſion, and has been amply proved by the ſubſequent experiments of Dr. Cheſelden.* From this connexion it happens, that the different viſible appearances of near and diſtant bodies conſtantly ſuggeſt the idea of extenſion, as ſubſiſting between them, even when a perfect vacuum is ſuppoſed: but this ſuggeſtion, not being in that caſe founded in reality, is a mere imagination. It is this imagination that ſo far impoſed on Dr. Clarke and others, as to perſuade them to think there is *ſomething* where, in fact, there is nothing: an imagination which, ariſing from an early aſſociation, cannot be got rid of, as Clarke

* Some of the moſt perſpicacious of the ſcholaſtics, much deſpiſed as they are, reaſoned in the ſame manner. Maſtrius Log. 329.

and

and his correſpondent allowed, though, by an accurate inveſtigation, it is proved to be a deception.

287. When bodies are diſtant from each other there is nothing to prevent another body from being placed between them, if none be already ſo placed. This denial of any obſtacle is what is called *capacity*: it is nothing poſitive, but merely a poſſibility inferred from uncontinuous diſtance.

288. Still, it will be ſaid, that there is an interval between diſtant bodies, otherwiſe they could not be diſtant; and this interval may be meaſured, and therefore it is extended. Now this interval is what is called *ſpace*, and, conſequently, ſpace is ſomething real and extended.

289. To this argument, which comprehends every thing that can be ſaid in favour of the reality of ſpace, I anſwer, that this interval is in nothing real different from diſtance: and this latter, indeed, is meaſurable by means of a ſolid line, reaching from one of the diſtant bodies to the other, and conſequently extended. To ſuch a line meaſures may be applied; but, without conceiving ſuch

a line,

a line, the meaſures would be applied to nothing, which is an evident abſurdity.

290. Hence we may infer, that, without two bodies at leaſt, there can be no diſtance, nor, conſequently, *ſpace*. Still leſs can it be ſuppoſed to exiſt, when there are no bodies at all; and, therefore, antemundane and extramundane ſpaces are merely imaginary.

291. If it be aſked, where a ſingle body would be placed, if no other body were created? I anſwer, *no where*, that is, in no place; *place* being, as Mr. Locke juſtly obſerves, (B. ii. Chap. xiii. ſec. 7,) the relation of diſtance betwixt two or more points which are conſidered as at reſt. When, therefore, there are no ſuch points, there is no place; and hence, as he remarks, (ibid. ſec. 10,) to ſay that the world is *ſomewhere*, means no more than that it does exiſt, but not its location.

292. I ſhall now take a retroſpective view of the opinions already mentioned, and obſerve how far they are juſt, and how far defective.

293. Des Cartes, yielding to the ſuggeſtions of imagination, which we need not be

be furprifed at, fince it impofed on Newton, Clarke, and, at times, on Locke himfelf, afferted, that fpace neceffarily implied extenfion. Now extenfion is a mere abftraction, and, confequently, can have no real exiftence. The term *extenfion* means no more than *extended things*, taken *ad libitum*. Of thefe, like all other abftract terms, it is a compendious expreffion. In this refpect Des Cartes and his followers reafoned more confequentially than many fucceeding philofophers: for he inferred an extended thing, namely, *matter*, to exift wherever fpace exifts; and thence denied the poffibility of a vacuum. His opinion having been long fince fatisfactorily refuted, and now univerfally abandoned, requires no further notice.

294. Mr. Locke feems at different times to have entertained different opinions of the nature of fpace; for, after clearly ftating, (B. ii. Chap. iv. fec. 2, 3, and Chap. xiii.) that fpace is the diftance between two bodies, or between the parts of the fame body, if the body be confidered lengthways, (and the fame may be faid of the parts of the breadth and the thicknefs, for their extremes alfo are dif-

tant from each other,) he denies (Chap, xvii. sec. 20,) that matter is any way necessary for the existence of space: and thus the notion of distance is completely abandoned. To this persuasion he was led, by the supposition, that if a man were placed at the extremity of the material universe, and stretched out his arm, his arm would still be in space. But this is an evident mistake: his arm would be in nothing, or surrounded by nothing; but different parts of his arm, being at a distance from his body, would form a solid space. And hence Locke himself allows, that the world is, properly speaking, *no where*, as already mentioned; though, in a sense which he justly calls confused, he allows it may be said to be in the space which it takes up, which is thus improperly distinguished from its extension, that is, the distance of its parts from each other.

295. Almost all the assertions of Dr. Clarke originated in the erroneous supposition, that space does exist where, in reality, there is nothing at all.* He supposed it to exist beyond

* Relations were imperfectly understood by Dr. Clarke. See his Reply to Waterland, p. 310; and see Waterland's Second Defence, p. 323.

the

the bounds of the corporeal univerſe, where even diſtance cannot exiſt. And this for no other reaſon, than that he conceived an extenſion to which he could ſet no bounds; not recollecting, that this extenſion was a mere creature of imagination, being barely the idea of viſual diſtance extended at pleaſure, and, conſequently, derived from a ſenſe, through which the knowledge of extenſion and diſtance is acquired only by experienced connexions with the ſenſations of touch. Whereas it is certain, that a man, born blind, would never imagine ſpace to exiſt, where there were no objects of *touch* betwixt which a diſtance might be found. He inferred the neceſſity of God's exiſtence *every where*, that is, in every *place*, when there was no place whatſoever; and, even if there were places, neither God, nor any ſpiritual being, can have any proper location. God is omnipreſent, by his power, his knowledge, and his operation, and not by the fictitious attribute of immenſity, which cannot be diſtinguiſhed from unlimited extenſion.

296. Hence, he further aſſerted, as I have already mentioned, that extenſion was neceſſary for every being. An opinion, as Dr. Prieſtley

Priestley justly observes, at present rejected by the most consistent immaterialists.*

297. How God can act where he is not, is as easily conceived, and as justly admissible, even if inconceivable, as that he knows contingent events that are to happen in times, with which he does not at present co-exist.† As infinite knowledge is sufficient in the one case, infinite power is sufficient in the other.

298. As all the subsequent assertions of Dr. Clarke proceed from the erroneous notions just mentioned, no further notice need be taken of them. But as some of his arguments, in favour of extramundane space, have an imposing appearance, I must shew that they are destitute of any reasonable ground.

* Disquisitions on Matter and Spirit, sec. 6. But he was deceived in conceiving this opinion to be entirely modern; for it was the opinion of Clemens Alexandrinus, 2 Strom. circa Medium; and John Damascene, *De Fide*, cap. xiv. who expresly says, God is no where; and Gregory of Nyssus, adversus Eunom. Lib. I. denies that angels, or any intelligent beings, bear any relation to space. Boetius Hebd. says, that incorporeal substances cannot be said to be in any place. The Thomists also hold, that angels cannot be said to be in any place but metaphorically. See Gonet, 347, folio.

† See Sherlock on the present state of the Socinian Controversy. p. 98.

299.

299. First, he takes for granted, that if this world be not infinite, it is moveable by the power of God; and, consequently, that there are two places, one from which, and the other towards which, it may be moved.

300. To this I make this short reply: that if there were but one body in existence, there could be no motion; for there can be no motion, where there can be no direction, either upwards or downwards, eastwards or westwards, &c. And as, in the supposed case, these, or any other direction, exist only in imagination, there, and there only, motion can exist. This even the scholastics perceived, of whom Dr. Clarke thought too contemptuously.

301. Further: he thinks it absurd to say, that space is absolutely nothing; for of nothing there is no quantity, dimensions, or property: nor is it a mere idea; for no idea of space can be formed larger than finite, yet space must be infinite. Nor is it a relation of one thing to another, arising from situation or order; for space is a quantity, which situation or order are not.

302. These objections arise from the wrong

notion he held of ſpace: its primary notion is diſtance. Diſtance implies an interval between the diſtant bodies; which interval, if filled up, is called ſolid ſpace, and, if unoccupied, is called empty ſpace: but this is nothing real and phyſical, and, conſequently, can have no dimenſion, or any property; but in proportion to the diſtance of the bodies betwixt which it intercedes, a capacity of receiving bodies of certain dimenſions is inferred to exiſt; not as any thing phyſical, but as a mere poſſibility, and, like other relations, exiſting only in the mind; but whoſe foundation (that is, the diſtant bodies) is phyſical and real. Diſtance is a relation ſuſceptible of degrees, and, conſequently, of quantity, though order and ſituation may not.

303. Grotius probably underſtood the text quoted from St. Paul as well as any man, and was certainly an unprejudiced judge in this caſe, as he was dead many years before this controverſy was ſtarted. He tells us, it is an Hebraiſm; *in him*; that is, through him, through God's beneficence we exiſt: he beſtows life and neceſſary motion, and is near us by his power.

304. On Leibnitz's opinion I need not animadvert: as far as it differs from the notion here given, it is satisfactorily refuted by Dr. Clarke; as may be seen in the preceding pages.

305. Dr. Law's idea of space agrees in effect with mine; yet I do not think it expressed with sufficient accuracy, which seems to give his adversary some apparent advantage.

SECT. IX.

OF DURATION, TIME, AND ETERNITY.

306. Duration is a word applied indiscriminately to the existence of created Beings, and to that of the Supreme Being; but its signification, when applied to the former, is widely different from that which it bears when applied to the latter. When applied to the former, it essentially includes a relation to succession; when applied to the latter, it essentially excludes any relation to succession. It cannot even be called *permanent* or *continued* existence; for, in such expressions, a relation

 to

to ſucceſſion is implied, during which the exiſtence is continued, repeated, or unaltered: hence no definition common to both can be given. We muſt, therefore, ſeparately mark what it denotes in each caſe.

307. *Duration*, when applied to created Beings, denotes co-exiſtence with ſucceſſion. I ſay *co-exiſtence*, becauſe ſuch Beings are ſaid to laſt or endure only by compariſon with different parts of ſucceſſion: a Being that exiſted only for one inſtant, that is, the minuteſt portion of ſucceſſion, could not be ſaid to have had any duration. Co-exiſtence, with two inſtants at leaſt, is requiſite. Hence Locke juſtly obſerves, that we gain the idea (or rather notion) of duration, by reflecting on the ſucceſſion of our own thoughts; as during this ſucceſſion we know that we exiſt.

308. To call duration a continuation of exiſtence, is giving a definition merely verbal; as this barely denotes the ſignification of the word, and denotes the thing defined only by implication.

309. But as the ſucceſſion of our thoughts is neither regular nor conſtant, and muſt be unknown

unknown to others, a regular, uninterrupted, and uniformly varied ſucceſſion, (or, at leaſt, whoſe ſlight irregularities are diſcoverable only at diſtant periods,) has been univerſally adopted as the ſtandard; by compariſon with whoſe component parts, the duration or co-exiſtence of all other created beings is determined and meaſured.

310. It is this ſucceſſion, or co-exiſtence with it, or ſome of its periods, that forms what is called *time*; for it is ſometimes taken for the mere ſucceſſion, and ſometimes for co-exiſtence with it, or with ſome of its periods.

311. The ſtandard of ſucceſſion which moſt nations have adopted, as a meaſure of the duration of every thing elſe, is the apparent, annual, and diurnal, progreſſion of the ſun, or the different phaſes of the moon, or both. Thus years, months, and days, are obtained. The minuter portions, as hours, minutes, ſeconds, and thirds, are diſcovered by the help of various machines well known.

312. That time conſiſts of parts ultimately indiviſible, is briefly and clearly demonſtrated

 by

by Mr. Hume *. "It is a property insepara-
"ble from time, and which in a manner con-
"stitutes its essence, that each of its parts
"succeeds another, and that none of them,
"however contiguous, can ever be co-existent.
"For the same reason that 1737 cannot con-
"cur with the present year, 1738, every mo-
"ment must be distinct from, and posterior
"or antecedent to, another. It is certain,
"then, that time, as it exists, must be com-
"posed of indivisible moments: for if, in
"time, we could never arrive at an end of
"division, and if each moment, as it succeeds
"another, were not perfectly single and indi-
"visible, there would be an infinite number of
"co-existing moments; which, I believe, will
"be allowed to be an arrant contradiction."
This last point he proves from Malezieu.
"Existence, it is evident, belongs only to
"unity, and is applicable to number only on
"account of the units it contains. Twenty
"men may be said to exist, but it is only be-
"cause one, two, three, &c. exist; and if you
"deny the existence of the latter, that of the

* Treatise on Human Nature, Vol. I. p. 61.

"former

" former falls of course. It is, therefore, ab-
" surd to suppose any number to exist, and
" yet deny the existence of units." But how far this division may extend cannot be perfectly ascertained. It is certain it can be carried far beyond our ideas of it, and that, by our auricular perceptions, it may be carried much further than by our ocular perceptions.

313. Thus, by the experiments of Chevalier D'Arcy,* it appears, that five or six distinct sensations, of a luminous body wheeled about, may be had in one second. But if the velocity of the rotation, and, consequently, the number of sensations, be increased, they cease to be distinct, and a continued luminous circle is formed; but if an opaque coloured body be thus whirled about, a few more distinct sensations may be discerned. Of auricular sensations a far greater number may be distinguished; for our celebrated astronomer, Mr. Herschel, has discovered, that upwards of 160 of them may be discerned in a second of time before they become confused and undistinguishable.† In general, where the

* Mem. Par. 1765.

† See Mr. Watson's Treatise on Time, p. 32.

greatest attention is not bestowed on the succession, particularly on that of visual sensations, the memory of those immediately past is so vigorous and lively, that many of them are confounded with, and appear belonging to, the present time, taken in the strictest sense. It is on this circumstance that many of the impositions of jugglers are founded.

314. The apparent length of time depends wholly on the attention paid to its succession; it appears short to those whose attention is firmly fixed on one object; for attention to succession, in such case, is as much as possible excluded. It appears still shorter to those who sleep without dreaming or interruption, as they are not conscious of any succession, and judge of the length of time, occupied by sleep, only by the sensations usually associated with rest, and the changes resulting from succession. So also, the duration of an agreeable state of mind appears short, even though it should co exist with many successive perceptions, because the pleasure arising from them, and not their mere succession, is that which chiefly occupies the attention.

315. On the other hand, when the attention

tion is not attracted to any particular perception, but wanders with indifference or disgust from each of the ideas that present themselves, their number is increased; and as the mind flies rapidly from one to another, their number being thus increased, the time appears longer.

316. For a similar, but a much stronger reason, when we are in a painful state, its apparent duration is much longer than the real: its termination being every instant coveted, the succession of these instants is strictly attended to.

317. A learned and profound metaphysician endeavoured to prove, that, strictly speaking, there is no such thing as *present* time. The question, however, is merely verbal. Undoubtedly, the present, taken in the strictest sense, denotes an indivisible instant, which can neither be called time nor duration; but it is on a perceptible aggregate of such instants, of which the memory is as vigorous, or nearly so, as the sensation corresponding with a single instant, that we bestow the name of *present time* in the usual sense.

318. Another lively, amusing, but eccentric

tric writer, taking it for granted, that time consists only in the succession of our ideas and actions, asserts, that " however these may " be accelerated or retarded, time will be just " the same, that is, neither shorter nor longer, " provided the same ideas and actions succeed " one another: as far, I mean, as it relates to " Beings so thinking and acting. For instance; " were the earth, and all the celestial bodies, " to perform the same revolutions in one day " which they now perform in a whole year; " and were all the ideas, actions, and lives of " mankind, hastened on in the same propor- " tion; the period of our lives would not be " in the least shortened, but that day would " be exactly equal to the present year. If, in " the space of seventy or eighty of these days, " a man was born, educated, and grown up; " had seen his children come to maturity, " &c.; and, during this period, had all his " ideas and actions, all his enjoyments and " sufferings, accelerated in the same propor- " tion; he would *not only seem* to himself, and " to all who lived in the same state with him, " and measured time by the same standard, " to have lived as long, but *actually, and in*

" *fact,*

"*fact*, would have lived as long as one who "resides on this globe as great a number of "our present years."—Is not this to say, that actually, and in fact, seventy or eighty of our days are equal to seventy or eighty of our years? It is plain that, even if the hypothesis were possible, it is only in *appearance* that an equality could subsist between them. But the hypothesis itself is grounded on no analogy whatsoever; to deduce any consequences from it is, therefore, an idle attempt. Judging from experience, we find that violent pain or anxiety, and not the mere number of succeeding ideas, apparently lengthens our notion of duration, or makes us think time longer than it really is. The number of ideas that occupy our imagination in reading an agreeable book, nay, the number of letters of which each line of it consists, and which must successively be perceived, must be very considerable; and yet the time seems short while we read it.*

* Whoever wishes for a more ample account of *Time*, will receive abundant satisfaction on perusing the profound, and yet perspicuous, treatise of Dr. Watson, jun. on *Time*, published by Johnson in 1785.

Eternity.

319. *Duration,** when that of the Supreme Being is meant, denotes exiſtence exempt from any commencement or termination. This mode of exiſtence is what is commonly called *eternal.* It is incomprehenſible and inconceivable, but implies no contradiction; for the notion of exiſtence, and that of abſence of commencement, and termination, are ſo far from being contradictory to each other, that a being, ſo circumſtanced, has been demonſtrated to exiſt.—It is intelligible, though imperfectly.

320. By this definition it appears, that ſucceſſion is eſſentially excluded from the notion of eternity; for ſucceſſion neceſſarily implies a beginning, as will preſently be ſeen. And, yet, eternity cannot be ſaid to be a *perpetual inſtant,* as ſome have called it; for that is an expreſs contradiction, and even more glaringly contradictory, than the *punctum ſtans* of ſome ſcholaſtics; for *inſtant* denotes the minuteſt portion of time or duration, and *perpetual,* the greateſt duration.

* See Waterland's Queries, p. 121.

321. Hence, we may learn the true import of ſome uſual expreſſions.

322. *From all eternity*; that is, without beginning.

323. *To all eternity*; that is, without ever ending.

324. Hence, alſo, we may collect, that eternity cannot be called a *quantity*; for its notion implies no magnitude whatſoever, but barely exiſtence unlimited; and, therefore, cannot be ſaid to be infinite, nor even equivalent to an infinite ſucceſſion; for ſuch a ſucceſſion is impoſſible, and purely chimerical.

325. The notion of eternity is poſitive, and not merely negative, as Locke ſuppoſes, though it includes a double negation. For notions that are commonly called negative,* or privative, are thoſe which directly import the non-exiſtence or abſence of ſomething poſitive as *darkneſs* does that of light, *ſilence* that of ſound, *death* the ceſſation of life, &c.: whereas *eternity* directly imports exiſtence; and, in-

* I have ſubſtituted the term *notions* for that of *ideas*, which Locke has employed too generally. The word idea ſhould never be uſed to denote any thing, but repreſentations of objects perceived by ſenſe.

directly,

directly, the absence of a positive, relation, namely, a beginning; and, also, of something negative, namely, a termination: or, in other words, existence unoriginated and interminable. It cannot be even called continued existence: for continuance implies a beginning, an existence begun, and thenceforward prolonged.

326. The Supreme Being, to whom alone the notion of eternity is applicable, having bestowed existence on other beings; on comparing the commencement of these, with the existence of that Being, from whose will and power they originated, the relations of the priority of the latter, and the posteriority of the former, necessarily arise. Now, priority and posteriority constitute succession: but this succession is not that of *time*; for, in this, the prior parts of the succession, instantaneously become *past*; whereas, in the former, the prior existence is constant and unaltered. The interval betwixt both is unmeasurable; as we have no standard, nor indeed is any possible, which can be applied to it. Thus, we cannot say, that the existence of God preceded that of any created being,

being, a million of years, or only a ſingle inſtant; as the quantity of the interval, or diſtance, is neceſſarily unknown.

327. Hence the queſtion, whether God could not have created the univerſe ſooner, implies an abſurdity: for the word *ſooner* expreſſes a compariſon of times; whereas *time* began only on the creation of ſucceſſion.

328. In reply to ſome captious queſtions, it ſhould be obſerved, that, ſince the creation, the duration of God co-exiſts with ſucceſſion. Hence though it cannot be ſaid, that the duration of God has now ſubſiſted longer than it has done, at any other period, ſubſequent to the creation; yet it may be ſaid, that its co-exiſtence, with created beings, is now longer than it was at any period preceding the preſent.

329. The only important point, that now remains to be conſidered, is, whether any created being could have been eternal; as ſome imagine the univerſe, or at leaſt ſome part of it, to have been? To me it appears ſufficiently clear, that creation and eternity, exclude each other. Creation implies, at leaſt, an inſtant, in which the created being did not exiſt: otherwiſe exiſtence could not have been beſtowed

ſtowed upon it; it muſt, therefore, have had a beginning; whereas eternity excludes a beginning.

In anſwer to this, it has been ſaid, that, if the ſun were eternal, its light would alſo be eternal, though produced by it. But it is eaſy to ſee, that, if the ſun were eternal, its light would indeed be eternal;* becauſe the ſun is eſſentially lucid; for without light it would not be a ſun. But it does not follow, that the light was produced by it, but rather that both were co-exiſtent; the one being included in the notion of the other. This cannot be ſaid of the notion of the Supreme Being, and any creature; for he may well be conceived to exiſt, without creating any being whatſoever.

Another much more plauſible objection is made by the ſcholaſtics. The exiſtence of the world, ſay they, is eternally poſſible; and the Divine Omnipotence is alſo eternal: all which is true. But their inference, that the effect, reſulting from an eternally omnipotent cauſe, could alſo be eternal, is inadmiſſible; as cauſation eſſentially requires priority of ex-

* See Clarke's Reply to Waterland, p. 253.

iſtence;

istence: without priority it could not be understood; it would be perfectly unintelligible. —And the reply they make to this exactly confirms it; for they say, that priority of *nature* is sufficient. Now, what else is priority of nature, but that priority, which the nature or notion of causation essentially implies, namely that of existence? Any other feigned priority is unintelligible. — Their further assertion, that, according to this statement, an infinite succession of ages must have been possible, before the creation of any being, is perfectly chimerical: not only because the interval betwixt the creation, and the pre-existence of the Creator, is unknown, as already said; but also, because an infinite succession is impossible, even in the divine ideas; a commencement being essential to succession, as I shall now demonstrate.

332. Mr. Locke says, we derive the idea of eternity from those of succession, and duration, by adding the periods of duration as often as we please; and thus suppose it a duration exceeding as many such periods as we can reckon,* without ever coming to an end.

* B. II. c. xiv. sec. 28, 31, 32. and c. xvi. sec. 8.

Now, it ſeems to me very clear, that this is rather a fruitleſs attempt to gain an idea, or rather notion of eternity, than an actual acquiſition of that notion: for, after all theſe attempts, we are as far from gaining it as we were at firſt; as he himſelf acknowledges. Hence he thinks, that "if we cannot ſeparate "ſucceſſion from any duration whatſoever, "our idea of eternity can be nothing but that "of infinite ſucceſſion of the moments of du-"ration, wherein any thing does exiſt."*

333. The notion, however, of an actual infinite ſucceſſion of moments implies an evident abſurdity: for ſuch a ſucceſſion ſhould conſiſt of as many years, nay millions and centillions of years, as it ſhould of moments; and thus the whole, and the parts compoſing the whole, would be equal. If we ſuppoſe an infinite number of years, aſſuredly the number of moments, of which thoſe years conſiſt, muſt be ſtill greater, and exceed infinity; which is abſurd. Thus, if an infinite ſucceſſion of moments had paſſed before the creation of the world, muſt it not be in-

* Chap. xvii. ſec. 16.

creaſed

creaſed by the number of them that have elapſed betwixt that time and the preſent.*

334. And, as to the eternity of our world, let it be conſidered, that motion, namely, a ſucceſſive progreſſion round a common centre, is neceſſarily attributable to thoſe planets, which form what we call the world: and that our globe, in particular, includes numberleſs beings that exiſt in endleſs ſucceſſion to each other. Now, an unoriginated, or eternal ſucceſſion, implies an abſurdity, as has been juſt ſhewn; and may be further demonſtrated: thus,

335. From the motion of the earth, for inſtance, round its axis, and round the ſun, the ſucceſſion of days, nights, and years, originates. Now, the days neceſſarily precede the years; therefore, the years muſt have had a beginning, and could not, therefore, have been eternal. In like manner, the days muſt have preceded the nights, or the nights the days: one or other of them muſt, therefore,

* Nothing can be more abſurd than Dr. Clarke's objections to theſe arguments: he regards mathematical lines, points, and ſurfaces, as realities, though they are nothing but mere abſtractions. See *On the Attributes*, p. 10 and 34.

 have

have had a beginning. Moreover, no portion of time can be said to be *past*, that was not once *present* and antecedently *future*; therefore the whole infinite collection must be supposed to have contained an infinite number of days and years *past*, and the same infinite number of days and years *future*; which is a contradiction so palpable, that Doctor Gregory Sharpe * found no other way of avoiding it, than by asserting, that there is, or was, a time, now actually *past*, that never was present; which is equivalent to saying, that a time *has* existed, which never *was* in existence.

336. The opinion of some scholastics, that eternity is a *punctum stans*, or a permanent moment, being utterly unintelligible, is, I believe, at present generally abandoned.

* See his Defence of Dr. Clarke's Discourse on the Attributes, &c. p. 27.

SECT.

SECT. X.

ON HUMAN LIBERTY.

337.—I. *Power* denotes the principle of action. Action denotes the *exercise* of power; or, rather, *action* denotes that disposition of a being through whose intervention a change happens. The possession of that internal disposition is called *power*.

338.—II. *Necessity* denotes the conceived *impossibility* of the non-existence of any thing.*

339.—III. Hence necessity is of three kinds; metaphysical, physical, and moral.

340. An object is said to be *metaphysically* necessary, when its absence involves a contradiction; and to be *physically* necessary, when its non-existence contradicts the established laws of corporeal nature, or when it cannot fail to exist, or cannot exist otherwise than it does without a miracle.

341. Lastly, that is said to be *morally* necessary, whose non-existence is contrary to

* Dr. Priestley, Vol. VI. p. 172, defines it *the cause of constancy*, but erroneously; the cause of constancy in moral actions is the superior apparent eligibility of the motives; *necessity* is a mere negation, and therefore cannot be a cause.

 the

the laws by which moral agents constantly and universally govern their conduct. On the other hand, we call that future object *certain* which will not fail to come to pass.

342.—IV. Hence certainty differs from necessity in this, that what is necessary *cannot*, and what is certain *will not*, fail to happen. What is necessary is certain, but not *vice versa*.

343.—V. A power is said to be *free*, when its exercise in every sense is morally possible.

344.—VI. *Will, or the power or faculty of willing*, is said to be *free*, when it may act or not act, or *elect*, without the constraint of moral necessity; for no other can be applied to the will. The application of this definition requires some further observations.

345.—VII. First, we must observe, that the will can form no volition, but with a view of obtaining some *good*, either real or apparent. For all rational agents *necessarily* covet happiness, and esteem that to be good which promotes or constitutes any degree of happiness, and consequently pursue it with an ardour proportioned to the degree it exposes to their view. A volition, like every action, requires a sufficient reason for its existence; and in this case, none can be adduced but the attainment

rainment of ſome degree of happineſs. The good or advantage, thus held forth to the mind, is called the *motive*, or final cauſe of its action. But the efficient cauſe of the volition is the mind itſelf; the term *motive* is in ſome degree improper, as it conveys the idea of activity, whereas it is, in reality, paſſive, being the term towards which the mind moves, or from which it recedes.

346.—VIII. Secondly, as the will can never act without a motive, the *connexion* between a volition and ſome motive is metaphyſically neceſſary, it being grounded on the very nature of the mind, or of an intelligent agent, which cannot act but with a view of obtaining happineſs. But with reſpect to *particular motives*, the following diſtinctions are to be obſerved:

347.—IX. If the good preſented to the mind be apparently *infinite*, its connexion with a correſpondent volition is then morally neceſſary; but if the good preſented be *finite*, the connexion muſt be weaker; but ſtill, as it is no leſs real ſince it exiſts, it is *certain*.

Note.—Certainty is an ambiguous term, as it ſometimes denotes the reality of an object; ſometimes the foundation or cauſe of that reality; and ſometimes the firm perſuaſion of

the mind of the reality of an object: here it is employed in the first sense, and sometimes in the second, but never in the last. In the first sense it is opposed to *unreality*, or *non-existence*; in the third, it is opposed to *uncertainty*, or mere probability.

348.—X. Necessity and contingency are opposed to each other, as contingency denotes the mere possible existence or nonexistence of an object in any future time; but the opposite of certainty is *unreality*.

349.—XI. Hence we may observe a gradation in the strength of the tendency of the mind towards the motives that are presented to it from that which is infinitely strong, and therefore produces a moral *necessity* to that which is indefinitely weak, but whose connexion with volition is nevertheless *certain*. To attribute a pursuit equally strong to motives of apparently unequal appetibility is evidently absurd; yet this the necessitarians are forced to maintain, as necessity admits of no degrees. The strength or force of motives, or, more properly speaking, their appetibility, evidently results from the degree of *apparent good* which they present.*

* Hence also the guilt of all crimes is diminished in proportion to the force of the temptation that led to them.

350.—XII. But it may be replied, that neither can reality admit of different degrees, nor, consequently, can certainty. This is true with respect to the first sense, but not with respect to the second sense of that word; for the foundation of certainty is so much the stronger as it approaches more to necessity.

351.—XIII. If ends or motives, *apparently equally* desirable, but suggesting different or opposite volitions, be presented to the mind; and if both present a greater good than that resulting from remaining in its actual state by embracing neither; in that case, the mind may tend to either, that is, may form a volition to obtain the good presented by either. For, though there be no *direct* reason for preferring either, yet the good presented by each is a sufficient, though indirect, reason for pursuing that presented by any of them; and the impossibility of pursuing both is a sufficient reason for pursuing one of them.* Yet, probably, some *extrinsic* reason generally suggests the choice; such as, that one of them was first thought of, or last thought of, &c.

352.—XIV. If motives, *apparently unequally*

* This is contradicted, 1 Leib. ccxv.

desirable,

desirable, be presented to the mind, then, if the inequality be *infinite*, the mind will *necessarily* pursue the most desirable, for the reasons already given.

353.—XV. If the inequality be *finite*, it frequently happens that, by considering them in different points of view, their appetibility may be inverted, the *most* desirable being in some respects the *least so*, and the least desirable appearing in some lights the *most so*. Hence the mind is free to pursue either, from the intrinsic good each holds to its view. But if the inequality be finite, and also their appetibility, the liberty of choice is proportionably diminished.

354.—XVI. This inversion becomes so much the easier as the inequality betwixt the proposed motives is apparently smaller; and so much the more difficult, as the apparent inequality is greater. And hence we perceive the benefit of instruction, as by its means the *apparent* inequality approaches indefinitely to the *real*.

355.—XVII. Motives are presented to the mind either by sensation, imagination, passion, sense of duty, fear of remorse, or moral instincts. In general, those presented by the three first modes

modes of perception, are most pursued, because in receiving them the mind is entirely passive, and their rejection is attended with a greater or lesser degree of pain; whereas the comprehension of the latter, in their full suasorial view, requires attention and self-command, which are opposed by the natural indolence of the mind, though the importance of the determination to be taken strongly indicate the propriety of applying them, and though the understanding pronounce the pursuit of the object they suggest to be in some respects the greater good. Hence the saying of Medea, *Video meliora*, &c.

356.—XVIII. The difficulties in which this subject has hitherto been involved, have arisen in great measure from the improper expressions used in treating it; most of which are, in their literal sense, applicable only to corporeal nature, which is passive, and therefore suggest false conceptions when applied to mind, which is essentially active. Thus *motives* seem to imply something active, whereas they are, in reality, passive, being the ends which the mind pursues, or may pursue. They are said to *impel* the mind to action, which

which again falſely denotes activity, whereas the mind naturally *purſues* them in proportion to the apparent good they preſent. Thus alſo *force* and *ſtrength* are improperly applied to them.

357. I ſhall now proceed to obviate the objections to human liberty, advanced by Dr. Prieſtley, who, of all others, has ſtated them with moſt clearneſs and preciſion, occaſionally noticing any thing further relevant to the ſubject, that has been advanced by other writers.

358. The Doctor (in p. 7 of his Illuſtrations of Philoſophical Neceſſity,) tells us, "that the liberty he denies to man, is that of "doing ſeveral things, when all the previous "circumſtances (including the *ſtate of his* "*mind*, and his *views of things*,) are preciſely "the ſame;" and aſſerts, "that, in the ſame "preciſe ſtate of mind, and with the ſame "views of things, he would *always* volun-"tarily make the ſame choice, and come to "the ſame determination."

359. By views of things, the Doctor evidently means motives, and conſequently, in ſome caſes, namely, thoſe mentioned in IX.

and

and XIV. his aſſertion is perfectly juſt, the motive being there ſuppoſed to be infinitely deſirable. But in moſt caſes, as thoſe mentioned in XIII and XV. it may be true, and it may alſo be falſe; for as in thoſe caſes the reaſons for oppoſite determinations are apparently equal, the mind may *at one time* form one choice, and at another time another; or it may *always* form the ſame, or each time a *different*.

360. The Doctor alſo ſays, "he allows "to man the liberty of *doing* whatever he "pleaſes;" but the liberty here meant is not the liberty of performing any external action, but the liberty of willing or chuſing.

361. Mr. Locke ſeems to think, that the will cannot properly be ſaid to be free; becauſe "liberty (he ſays) is but a power belong- "ing to agents, and cannot be an attribute "or modification of will, which is alſo a "power." But liberty is not merely a power, but a ſpecies of power, as power may be exerted either neceſſarily or freely.

362. To eſtabliſh his concluſion, Dr. Prieſtley lays down ſome obſervations relative to cauſe and effect, which, being ſolely applicable

to corporeal nature, I omit. He then tells us, (p. 13.) "that a particular determination of "the mind could not be otherwise than it "was, if the laws of nature be such, as that "the same determination shall constantly "follow the same state of mind, and the "same view of things; and it could not be "possible for the same determination to have "been otherwise than it *has been*, *is*, or *is to* "*be*, unless the laws of nature had been such, "as that, though both the state of the mind "and the views of things were the same, the "determination might, or might not, have "taken place. But in this case the determi-"nation must have been an effect without a "cause; because in this case, as in that of a "balance, there would have been a change "of situation without any previous change of "circumstances; and there cannot be any "other definition of an effect without a "cause."

363. To this reasoning I reply,—that the laws of nature, with respect to intellectual agents, are such, that, though the state of mind and the views of things be exactly the same, one and the same determination might

not

not have taken place in the cases mentioned in XIII. and XV.: and yet, whether the same or a different determination take place, it will not be an effect without a cause; for as in those cases different motives or final causes, equally attractive, are supposed to occur—whichever of them the mind pursues, its determination will not want a final cause. The comparison of a balance, which will remain in æquilibrio when the scales are loaded with equal weights, is inapplicable, as the balance does not act, but is acted upon; whereas the mind is evidently possessed of an active power of pursuing a proposed end.

364. The Doctor further adds, (in his reply to Mr. Palmer, p. 7,) "that certainty, or "universality, is the only possible ground of "concluding, that there is a necessity in any "case whatever;" which is true, as far as respects corporeal nature. But, with respect to intelligent beings, the perceived connexion betwixt their actions, and a superior *degree* of apprehended happiness, is the true ground of the necessity of their volitions when they are necessary, as shewn, IX. and XIV.; which, indeed, may be indicated by constancy and

universality;

universality; and where this ground does not exist, certainty (with respect to our knowledge) cannot be obtained.

365. The next argument, in proof of the necessity of human actions, is derived from divine prescience. Dr. Priestley states it thus: "As it is not in the compass of power "in the author of any system, that an event "should take place without a cause, or that "it should be equally possible for two events "to follow in the same circumstances, so neither, supposing this to be possible, would it "be within the compass of knowledge to "foresee such a contingent event; for as nothing can be known to *exist* but what does "exist, so, certainly, nothing can be known "to *arise from what does exist* but what does "arise from it, or depend upon it. But, according to the definition of the terms, a "contingent event does not depend upon any "previous known circumstances, since some "other event might have arisen in the same "circumstances. All that is in the compass "of knowledge in this case is, to foresee all "the different events that might take place "in the same circumstances; but which of

"them

"them will actually take place cannot possibly be known."—P. 19.

366. In answer to this argument, we must observe, that not only the immensely complicated series and concatenation of events, which we denominate the *actual system of the world*, was originally *barely possible*, but also an infinite number of other systems, differently arranged and equally complicated. In some of these the contingent act appeared linked with one of the motives with which, in the same circumstances, it might possibly be connected; and, in another system, a very different event might arise from the equally possible connexion with the opposite motive, as in the cases N° 13, and 15. Each of these events would give room to a totally different series of subsequent events; for the greatest and most important arise from others seemingly the least important. Among these different systems God has chosen the *best*, or, at least, *one of the best*; and upon this choice his foreknowledge of that determinate contingent object, which is to happen, to which the Doctor alludes, and where apparently unequal motives do not determine it, is grounded.

367. To this argument Mr. Crombie (in his Treatife on Philofophic Neceffity, p. 73,) further adds, that fince the Deity forefees future events, they muft neceffarily take place. But as knowledge of any kind is perfectly extrinfic to the events known, and exerts no fort of influence over them, all that can juftly be inferred from the infallibility of divine præfcience is, that the event forefeen will *certainly* and infallibly, but not neceffarily, happen; for to fecure the infallibility of divine foreknowledge, the future exiftence of the event forefeen, and not the impoffibility, whether phyfical or moral, of its nonexiftence, or, in other words, its certainty, but not its impoffibility, muft be fuppofed.

368. All the objections, hitherto made to human liberty, feem to me reducible to thofe I have here noticed. It is needlefs to adduce any argument in proof of it, as the confcioufnefs of our being ourfelves the active principle, from which our determinations originate, and the remorfe incident to the abufe of this felf-determining power, imprefs the fulleft conviction of this important truth.

ESSAY II.

CHAP. I.

OF THE HUMAN MIND AND ITS MODIFICATIONS.

369. By the human *mind*, we denote the principle or ſubject of our perceptions, whether ſenſations, ideas, notions, thoughts, judgments, volitions, deſires, averſions, &c. which we call our *ſelf*, of which we are conſcious; we can even infer by reaſoning, from the impoſſibility of the exiſtence of modes without a common ſubject, that ſuch a ſubject really exiſts: by a ſpirit I underſtand that indiviſible unextended thing which thinks, acts, and perceives. See Berkeley's Third Dialogue, p. 293.

370. Yet Mr. Hume aſſerts,* "that mankind are nothing but a bundle of perceptions, which ſucceed each other with an inconceiveable rapidity, and are in a perpetual flux and movement." And again, "we may obſerve, that the true idea of the mind, is to conſider it as a ſyſtem of dif-

* Treatiſe on Human Nature, p. 361. 437. 439. 453.

" ferent perceptions or different existences
" which are linked together, by the relation
" of cause and effect, and mutually produce,
" destroy, influence, and modify, each other."
These strange assertions are entirely grounded on this, that we have no idea of *self*, as if we did not know many things of which we have no idea in the strict sense of that word; thus we have no idea of *joy* or *grief*, *judgment* or *volition*, though we well know what those words indicate.

371. In the delusive plausibility of such reasoning, the hyloists,* or supporters of the existence of what they call *material substance*, loudly triumph, as they think the reasoning of Berkeley against the existence of matter, grounded on similar principles, and therefore equally visionary and absurd: but they are much mistaken; the falsehood of Hume's reasoning, if it can be so called, is demonstrable; whereas it is generally allowed that Berkeley's arguments, though (in some minds) they produce no conviction, yet admit

* Such philosophers as admit no other substance but matter I call *materialists*, such as admit both matter and mind I call *hyloists*.

mit of no anſwer;* the weakneſs of the few that were attempted I ſhall ſoon ſhew.

372. But to return to Mr. Hume: Mr. Merian, one of the ableſt metaphyſicians of the age, has ſhewn more at large the abſurdity of Hume's ſyſtem, in the Memoirs of Berlin for 1793, nearly as follows.†

According to Mr. Hume, we are nothing but an aggregate of phænomena. Now I aſk, whether a phænomenon can exiſt without being perceived? If not, I aſk who perceives it? To this queſtion there are but three poſſible anſwers; either it is perceived by itſelf, or by ſome other phænomenon, or by ſomething that is not a phænomenon. Now a phænomenon perceiving itſelf, would be ſtrange indeed; ſounds hearing themſelves, ſmells ſmelling themſelves, &c.: beſides, in this caſe, there could be no compariſon of phænomena, nor conſequently any judgment founded on ſuch compariſon. Secondly, to ſay that phænomena can perceive other phœnomena, is ſtill, if poſſible, more abſurd;

* 1 Reid, Intell. Powers, 237; and Inquiry into the Human Mind, laſt edit. p. 21.

† Ibid. 21. 22.

for

"ferent perceptions or different existences "which are linked together, by the relation "of cause and effect, and mutually produce, "destroy, influence, and modify, each other." These strange assertions are entirely grounded on this, that we have no idea of *self*, as if we did not know many things of which we have no idea in the strict sense of that word; thus we have no idea of *joy* or *grief*, *judgment* or *volition*, though we well know what those words indicate.

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† Ibid. 21. 22.

for inſtance, ſmells hearing ſounds, ſounds ſeeing colours, &c.; therefore Thirdly, there muſt be a ſubject or *ſubſtratum* of theſe perceptions, of which they are modifications. Moreover, ſenſations of one ſort, are often compared with ſenſations of another ſort, as thoſe of ſight with thoſe of hearing: now, can viſion judge of hearing? or colours judge of ſounds? &c. May we not have two ſimultaneous ſenſations contrary to each other? May we not feel extreme heat in one hand and extreme cold in the other? Can then two contrary ſenſations co-exiſt without any ſubject? But it were idle to purſue this ſubject further. Very different, indeed, are the arguments of Berkeley againſt that fictitious *ſubſtratum* called *matter*: how then could Doctor Reid ſay, that Hume proceeds on the *ſame principles* as Berkley, but carries them to their full length? And as the biſhop undid the whole material world, this author, on the *ſame grounds*, undoes the world of ſpirits, and leaves nothing in nature but ideas and impreſſions, without any ſubject on which they may be impreſſed. That Hume's theory has been

very

very unfairly deduced from Berkeley's tenets, is acknowledged by the candid and judicious author of the Encyclopædia Britannica, p. 544.*

* Berkeley himself has long ago anticipated and obviated this objection, in his third Dialogue; thus, "I "know, or am conscious, of my own being; and that I "myself am not my ideas, but somewhat else; a thinking, "active principle, that perceives, knows, wills, and operates about ideas. I know that I, one and the same self, "perceive both colours and sounds: that a colour cannot "perceive a sound, nor a sound a colour: that I am "therefore one individual principle, distinct from colour "and sound; and, for the same reason, from all other sensible things and inert ideas: but I am not in like manner conscious either of the existence or essence of matter, "on the contrary, I know that nothing inconsistent can "exist, and that the existence of matter, implies an inconsistency. Further, I know what I mean, when I affirm, "that there is a spiritual substance or support of ideas; that "is, that a spirit knows and perceives ideas. But I do not "know what is meant, when it is said, that an unperceiving "substance hath inherent in it, and supports, either ideas or "the archetypes of ideas. There is therefore, upon the "whole, no parity of case between spirit and matter." P. 297 and 298.

SECT.

SECT. I.

OF THE MODIFICATIONS OF THE HUMAN MIND.

373. The modifications of the mind, or the various ſtates in which it may exiſt, have been already enumerated, N° 369. Our next endeavour ſhould be to claſſify them, in order to obſerve in what reſpect they agree or are diſtinguiſhed from each other.

374. The firſt and moſt general diſtinction of theſe modifications, is that of *paſſive* and *active*.

375. The paſſive, are thoſe of which the mind itſelf is not the direct and immediate cauſe, but which are impreſſed upon it by an extrinſic cauſe, which can be no other but the *Supreme Being*; though in many inſtances the mind, conformably to certain ſtated laws, may alter, exchange, or extinguiſh, many of them. Thus while my eyes are open, I cannot avoid ſeeing one or more of the objects that are before me; but I may, if I pleaſe, ſhut my eyes, and thus extinguiſh all viſual ſenſations; and by opening my eyes I may renew them again: in this manner the Will

may

may often be the occasional cause of the existence or extinction of sensations, and other passive modifications.

376. Hence passive Modifications may be called *impressions:* by impression I understand any sensible change produced in a passive subject, by the operation of an external cause.

377. Impressions are either *sensual*, or *sensible*, or merely *spiritual.*

378. *Sensual* impressions are those that are made upon us through the intervening organs of the external senses: they are called *sensations.* Such are those of vision, hearing, smells, tastes, and tact.

379. *Sensible* impressions are those made upon us through the internal organs of feeling; such as those of hunger, thirst, saturation, and other sensations, whether painful or agreeable, and may be called internal sensations.

380. *Spiritual impressions* are those which are connected indeed with corporeal impressions, but in an invisible and unknown manner. Such are ideas, discernment of relations, emotions and passions.

381. All the passive modifications are comprehended

prehended under the general appellation of *perceptions*.

382. The *active* modifications of the mind are only two; the act of *judging*, and that of *willing or rejecting*; which last, when exercised on the proposal of two or more measures, is called *election*, or *preference*.

383. All the above-mentioned modifications have been referred to different capacities or powers; namely, the *understanding*, *memory*, and *will*.

384. Under the head of *understanding*, are placed, sensations, ideas, notions, discernment of relations, and judgment.

SECT II.

OF SENSATIONS IN GENERAL.

385. Sensations are the impressions which we receive from the Supreme Being, through the intervention of the organs of sense; they are also the strongest and most forcible, as they more strongly excite our notice than other perceptions commonly do. On these we may remark,

386. First, that in the perception of sensations, the mind is perfectly passive; for they cannot be excited by a mere act of the will, as already said: in vain would I seek to obtain the sensation of *redness*, or of any sound, &c. or of hunger, merely by wishing to do so; but by exercise I may excite, and thus be the occasional cause of the sensation of hunger, and by taking proper means I may obtain other sensations.

387. Secondly, sensations have no object distinct from themselves; that is to say, they are not representations of any thing; they can only be said to be perfectly similar to other sensations of the same kind and degree in other minds.* But they are frequently signs of other sensations which may be expected; thus the smell of a rose suggests the presence of a rose; the smell of putrid meat announces also its taste, and even occasions a nausea, which is an internal sensation.

388. Thirdly, sensations are also capable of various degrees of intensity, from the faintest, which are capable of being mistaken for de-

* In this I am happy to agree with Dr. Reid. 1 Reid, 276; and on the Mind, 146.

lusions,

lusions, to the strongest. This often happens when we contemplate very distant objects, or view them through a mist, or in a weak light; as we approach, or the medium becomes more transparent, or the light more copious, the object is more clearly discerned. So warmth may be gradually increased, until from being agreeable it becomes painful. So the feeling of a smooth body may be so increased, as from being gentle and agreeable, to become a painful pressure. So meat may be so far salted or spiced, as from being pleasing to become painful; the same may be said of perfumes, sounds, &c. Hence Dr. Crichton justly observes, that pleasure differs from pain only in degree:* but such degrees may exist independently of each other.

389. Fourthly, the mind may experience different sensations at the same time: thus I may see the moon, smell a rose, taste honey, and hear sounds at one and the same time; nay, I may feel opposite sensations at the same time: thus, if I warm one of my hands and cool the other in snow, and then dip both in

* 1 Crichton on Mental Derangement, p. 127.

lukewarm

lukewarm water, the warm hand will feel it cold, and the cold hand warm.

390. Fifthly, a group of ſenſations received through different ſenſes, but connected with, dependant on, and referred to each other, receive the ſame name: thus, the aſſemblage of a certain colour, of a certain peculiar ſmell, a certain ſhape and figure, and a certain flexibility, ſmoothneſs, &c. is called a *roſe*: its properties, when chymically treated, are more numerous, but they are all connected with and referred to thoſe firſt mentioned; inſomuch, that if the ſmell was taken away, or different, the other ſenſations remaining unaltered, the group would no longer bear the ſame name, or it would have ſome addition tacked to it, as a *muſk roſe*, &c.; ſo alſo if the number of its petals, or *ſtamina*, were altered.

391. So alſo water, whether hot or cold, retaining the ſame external appearance, is ſtill called water; but if converted by heat into *ſteam*, or by cold into *ice*, it no longer bears its original name, though again reducible to its priſtine ſtate; its conſtitution therefore remains unaltered in theſe different ſtates, which are then merely contingent; but its

conſtituent

conſtituent ingredients are deemed its eſ-
ſence.

392. In the ſame manner an aggregate of appearances perceived by the ſenſes of ſeeing and touch, as a peculiar colour, luſtre, malleability, extenſibility, and comparative weight, together with the exhibition of various other properties, when chymically treated, is known by the name of gold, or ſilver, &c. as the caſe may be; and it retains the ſame appellation, whether cold and ſolid, or liquified by heat.

393. The ſame remark extends to all other mineral, vegetable, or animal bodies; the aggregate properties perceived by the ſenſes, in the ſame circumſtances, are the only which form the complex object to which a name is given; nothing elſe is found, or can be found, through the medium of the ſenſes; ſo that if we had ten more ſenſes they could convey to us nothing more than new ſenſations; but could not inform us of their cauſe, which muſt be inferred by reaſon, and can be no other than the Supreme Being, or other beings conforming to the laws he has preſcribed.

394. Each of theſe ſenſations, conſidered
ſingly,

ſingly, are called the qualities of that to which they are referred.

395. Sixthly, as all ſenſations are impreſſed on our minds by the Supreme Being, they muſt be known to him, not by organs of ſenſe, of which he has none, but in a manner to us inconceivable: the ſame changes therefore which, conformably to his laws, take place in our minds, are perceived by him, whether perceived by us or not. That his mode of knowledge is to us inconceivable, is, beſides other reaſons, evident from this, that he knows *pain*, even the moſt extreme, without feeling it; whereas, if we had never felt it, we ſhould never know it. The modifications of our minds ſhould, in caſe they exiſted in them, undergo various changes, by reaſon of the progreſs, interference, or oppoſition, of the laws by which they are governed, or to which they are expoſed: in the Divine intellect correſponding variations take place; nor do ſuch variations derogate from his eſſential perfections, as they neither add to nor detract from any of them. That ſuch variations are not incompatible with his immutability, is evident, ſince he poſſeſſes now, as

he

he did from all eternity, the moſt perfect freedom; which eſſentially requires a power of changing his determinations at preſent, equally as at any antecedent imaginable period of his exiſtence.*

SECT. III.

OF ODOURS, SOUNDS, AND TASTES.

396. The ſenſations of ſmells and ſounds may exiſt in the mind without any reference to a particular object: thus I may perceive a ſmell, without knowing with what tangible ſenſation it is connected: thus the ſavage boy of Aveyron did not turn his head on hearing a piſtol fired juſt behind him; but by experience a connexion, more or leſs perfect, is acquired.

397. That both theſe ſenſations can exiſt only in the mind that perceives them, is now univerſally allowed; that they are not images or repreſentations of any external object, is alſo acknowledged; yet they are ſo connected

* This is owned by many of the ſcholaſtics. See Segui, Metaph. vol. ii. p. 97.

with

with tangible ſenſations, either perceived or ſuggeſted, that their intenſity increaſes in proportion as their diſtance from the tangible ſenſations decreaſes: and hence they are ſuppoſed by many to iſſue from them. But this is impoſſible; for one ſenſation cannot iſſue from another, from which it is ſpecifically different; as well might taſtes proceed from light: they relate to organs totally different. Nor can they be ſaid to be cauſed by any tangible objects, as Dr. Reid, the ableſt defender of hyloiſm, candidly avows. * What we call natural *cauſes*, may with more propriety, the Doctor ſays, be called natural *ſigns*; and what we call *effects*, are the things *ſignified*. What we call cauſes, he adds, have no natural efficacy or cauſality, as far as we know: all we can certainly affirm is, that nature (God) hath eſtabliſhed a conſtant conjunction between them and the things called their *effects*.

398. In the caſe before us, the connexion betwixt odours or ſounds with tangible ob-

* Inquiry into the Human Mind, Chap. v, ſec. 3. p. 112

jects is ſuch, that variations in the ſtate or ſpecies of the former are conſequent on, and correſpond with, the variations in the ſtate of the latter: thus the ſmell of a roſe ſuffers ſome alteration when the roſe is dry, or heated to a certain degree, and is deſtroyed when the heat is further increaſed: thus the ſmell of wine is changed when it becomes vinegar; as is that of meat as it enters and proceeds in the putrefactive proceſs; ſo the ſound of a chord alters with its extent and tenſion, &c. And not only tangible, ſolid, ſonorific objects, are thrown into a vibratory motion, but oſcillations, or undulations, are produced in the air that communicates with them which reach the ear, after which the ſenſation of ſound ariſes, which has no reſemblance whatſoever with theſe motions.

399. So the vapour of eſſential oils ſtrikes the glands of the noſtrils before any ſmell is perceived, though this vapour is imperceptible by the ſight or the hand; yet it is perceived by the noſe and fauces, as diſtinct from the ſmell.

400. *Taſtes* to be perceived require contact with the tongue or palate, or ſtomach of

objects,

objects; that is, sensations, still more perfectly tangible, whether solid or liquid.

401. To investigate more minutely the processes that precede the sensation peculiar to each of the senses, is needless in a metaphysical treatise. Whoever wishes an exact detail will find it in Doctor Crichton's truly philosophical Essay on Mental Derangement.

402. Hence we see, that a tactile sensation, that is, a sensation perceived by the tact of the organs, or any of the senses, must in all cases precede the sensations peculiar to that sense: and hence, though it cannot be called the *efficient* cause, yet it may be the *occasional*, or *conditional*, cause of that sensation.

SECT. IV.

OF VISUAL SENSATIONS.

403. It is quite unnecessary to give here any detailed account of the structure and admirable mechanism of the organs of sight, as it is now universally acknowledged, that their structure cannot explain how visual sensations are obtained.* Yet these organs, and the in-

* Porterfield, Stewart, Crichton, Condillac, &c.

tegrity of their ſtructure, are conditions neceſſary to the attainment of thoſe ſenſations, as is evident by the ceſſation of theſe, when thoſe are diſturbed or injured. The ſame may be ſaid of the organs of all the other ſenſes.

404. The ſenſations of *light* and *colours*, with their intermediate ſhades and degrees, are alone immediately perceived by the mediation of the organs of ſight; and hence called its proper *object*: juſt as *ſounds* are the proper object of *hearing*; and as *extenſion*, *motion*, *heat* and *cold*, &c. are the proper objects of the *touch*, or ſenſe of *feeling*; becauſe immediately perceived by the mediation of the organs of that ſenſe. Yet, plain and evident as this is, moſt philoſophers have, in ſome caſes, greatly miſapplied this term; for they have conſidered the objects of a ſenſe as ſomething diſtinct from the ſenſation obtained through that ſenſe, though, in other caſes, they allow the object cannot be diſtinguiſhed from the ſenſation. Thus moſt philoſophers, ſince the time of Deſcartes, and Mr. Locke in particular, allow that colours, ſmells, and ſounds, are nothing in their *objects* themſelves.

felves, but only *powers* to produce those fen-fations in us.* Yet these powers, not being immediately perceived, but only inferred, (no matter, at prefent, whether properly or improperly,) cannot be called the object of any fenfe—no more than a fword can be faid to be the object of the painful fenfation a wound from it inflicts. Yet Dr. Reid thinks he perceives matter *objectively*.—1 Reid, 265. But what he calls *perception*, turns out, when examined, to be an act of judgment at moft, and hardly even that; and what he calls its *object*, a mere inconfiftent notion, for which he can find no other name than *a fomething*, as will be fhewn in the appendix to this effay. He allows that *fenfations*, which he in vain endeavours to diftinguifh from perceptions by fenfe, have no object diftinct from themfelves.—1 Reid, 53, and 55.

405. Though *light* and *colours* alone are the immediate objects of fight, yet, by long and deep-rooted affociations with the objects of touch, and certain fenfations of the tactile kind in the eye itfelf, many other objects, which properly belong to the touch, are in-

* Locke, B. ii. Chap. viii. fec. 14.

ſtantaneouſly ſuggeſted to the mind, and their exiſtence, either actual or future, inferred. Theſe objects are *diſtance*, tangible *extenſion*, *magnitude*, *ſituation*, *motion*, *figure*, and frequently *weight*: what ſpecies of perception is thus ſuggeſted, ſeems to me well explained by Profeſſor Stewart.* He tells us, that the qualities, which are the proper and original objects of ſight, are firſt perceived; and, ſecondly, a conception is had (that is, an idea,†) of thoſe tangible qualities, of which the original perceptions of ſight are found from experience to be the ſigns. The perceptions, therefore, we have, by means of the eye, of the tangible qualities of bodies, and of the diſtances of theſe bodies from the organ, are mere *ideas*, ſtrongly, and indeed indiſſolubly, aſſociated, by early and conſtant habit, with the original perceptions of ſight.

* Philoſophy of the Mind, 148, &c.

† By conception, he means that power of the mind which enables it to form a notion of an abſent object of perception, or of a ſenſation which it has formerly felt, p. 133: this is more commonly called an *idea*. I have alſo ſubſtituted perception for *notion*, as more agreeable to my definitions; and the ſenſe not altered.

406.

406. When we open our eyes on a magnificent proſpect, the various diſtances at which its different parts are placed from the eye, and the immenſe extent of the whole ſcene before us, ſeem to be perceived as immediately and as inſtantaneouſly by the mind, as the coloured ſurface; the truth however unqueſtionably is, that this variety of diſtance, and this immenſity of extent, are not *objects of ſenſe*, but of *idea*; and the perceptions we have of them when our eyes are open, differ from thoſe we ſhould have of them with our eyes ſhut, only in this, that they are kept ſteadily in the view of the mind, by being ſtrongly aſſociated with the *ſenſations* of colour, and with the original perceptions of ſight; this obſervation will be more readily admitted, if it be conſidered, that by a ſkilful imitation of a natural landſcape, in a common ſhew-box, the mind may be led to perceive the ſame variety of diſtance, and even of immenſe extent, as if the original ſcene were preſented to our ſenſes: and that, although, in this caſe, we have a *ſpeculative* conviction that the ſphere of our viſion only extends to a few inches, yet ſo ſtrong is the aſſociation

between the original perceptions of ſight, and the ideas which they habitually ſuggeſt, that it is not poſſible for us, by any effort of our will, to prevent theſe ideas from taking place.

407. Beſides the viſual ſenſation called *light*, there are tactile ſenſations, alſo, called light, or rays of light, perceptible by contact with the organ of ſight, which are diſtinct from, and precede as uſual, the viſual ſenſation: this is evident from the injury which the organ ſuffers by expoſure to a ſuperabundance of thoſe rays. Some of them always remain in the organ. When theſe ſenſations are combined, they precede the mere ſenſation of light; but when ſeparate, they precede the ſenſation of various colours; and hence they are called *colorific rays*, or *priſmatic colours*, as their ſeparation is more diſtinctly effected by a priſm; though, in fact, only the tangible ſenſations are thus ſeparated: but they are followed by the viſual.

408. Though *colours* form the proper object of ſight, yet, by their early and conſtant aſſociation with certain tangible objects, of which they are only the ſigns, they are, in appearance,

appearance, ſpread over them, and ſeem to inhere in them; but this miſtake has long ſince been detected by Deſcartes, Malbranche, and Locke. In effect, colours vary with the diſtance of the tangible object, with a depravation of the humours of the eye, by the light of the moon, or of candles, or various artificial means: thus mountains, though green when near, appear blue at a diſtance; a cloud, though red at a diſtance, appears but a dark fog when near: all objects ſeem yellow to a jaundiced eye, or ſeen through a yellow glaſs; or red, when ſeen through a red glaſs; and light blues appear green by moon or candle light: and let it not be ſaid, that theſe colours are not real, but merely artificial; for, as Berkeley juſtly remarks, muſt not thoſe colours be deemed the moſt true and real, that are diſcerned by the ſharpeſt ſight? Now, it is certain from dioptrics, that microſcopes make the ſight more penetrating, and repreſent objects as they would appear to the eye, in caſe it were endowed with the moſt exquiſite ſharpneſs; yet they often diſcover colours in an object different from thoſe perceived by the unaſſiſted ſight; and in caſe we had microſcopes,

ſcopes, magnifying toany aſſigned degree, it is certain that no object whatſoever, ſeen through them, would appear in the ſame colour which it exhibits to the naked eye; hence we may conclude, that colours are not really inherent in tangible objects, but perfectly dependant on circumſtances; and, to ſay nothing of our dreams, the colours ſeen in a common mirror are ſufficient to perſuade us, that they have no neceſſary connexion with the tangible objects they apparently inveſt.

409. I now proceed to the ſecondary objects of ſight, *diſtance*, viſible *magnitude*, *figure*, *ſituation*, and *motion*, of which I ſhall give a ſummary account; firſt from the fourth dialogue of Berkeley's Minute Philoſopher, and ſubjoin thereto a fuller, from his Eſſay on Viſion. There will be ſome repetitions, but in treating a matter ſo abſtruſe, they will not be found uſeleſs.

410. *Diſtance* is a line projected endwiſe to the eye. Now a line in that ſituation can project no more than one ſingle point on the bottom of the eye; the appearance therefore of a long or ſhort diſtance is of the ſame magnitude, or rather of no magnitude at all, be-

ing

ing in all cafes a fingle point: hence diftance is not *immediately* perceived by the eye, therefore it is by the mediation of fomething elfe. To difcover what this is, let us examine what alteration there may be in the appearance of the fame object placed at different diftances from the eye. Now I find by experience, that when an object is removed further and further in a direct line from the eye, its vifible appearance grows leffer and fainter, and this change of appearance being proportional and univerfal, feems to be that by which we apprehend the various degrees of diftance; yet littlenefs or faintnefs, in their own nature, have no neceffary connexion with greater length or diftance; they could not therefore fuggeft it but from experience; confequently we perceive diftance by a fign which has no likenefs to it, nor neceffary connexion with it, but which fuggefts it from repeated experience, as words do things.

411. Diftance is not eftimated by the obtufenefs or acutenefs of angles, for the angles themfelves are not perceived, and therefore nothing can be inferred from them: from all which it follows, that a man born blind, and afterwards made to fee, would, upon firft receiving

receiving his fight, take the things he faw not to be at any diftance, but in his eye, or rather in his mind.

412. Strictly fpeaking, the tower or object I fee at a great diftance, is not the fame as that which is feen when near; the former is a little round thing, the latter a great fquare building; and furely a round thing cannot be exactly the fame as a fquare thing.

413. Hence the variations of vifible objects form a language adapted to fuggeft the diftance, figure, fituation, and dimenfions of tactile objects; not by fimilitude, nor by the arbitrary interpofition of providence; but juft as words fuggeft things fignified through the ear, by experience and habit.

414. Hence a perfon newly made to fee, would never think of men or trees, or other objects, which he had been accuftomed to know by touch, upon having his mind filled with the new fenfations of light and colours, whofe various combinations he doth not as yet underftand, no more than a Chinefe upon firft hearing the

words

words *man* and *tree*, would think of the things signified by them.*

415. The tactile objects thus suggested are said to be *seen*, because their visible signs being little attended to in themselves, or for their own sake, but considered chiefly in their relative capacity, it comes to pass, that the mind often overlooks them, and carries its attention immediately to the object signified: thus, in reading, we run over the characters with the slightest regard, and pass on to the meaning: hence we often say, we see *words* or even *things* in reading, whereas, in strictness, we see only the written characters which suggest those words: so men overlooking the immediate and proper objects of sight, carry their attention onward, to the tangible objects which are the things signified, and talk as if they saw them, whereas in truth they are only suggested or apprehended, by the proper objects of sight, which alone are seen; this connexion we learn of ourselves, and from our earliest infancy.

* These predictions were verified by Cheselden's experiment, nineteen years after this was written by Berkeley; and lately by Dr. Home, Phil. Transf. 1807. p. 83.

From

*From Berkeley on Vision.**

§ 3.

416. It is acknowledged, that the eſtimate we make of the diſtance of objects conſiderably remote, is rather an act of judgment, founded on experience, than of ſenſe. For example, when I perceive a great number of intermediate objects, ſuch as houſes, fields, rivers, and the like, which I have experienced to take up a conſiderable ſpace, I thence conclude, that the object I ſee beyond them, is at a great diſtance. Again, when an object appears faint and ſmall, which at a near diſtance I have experienced to make a vigorous and large appearance, I inſtantly conclude it to be far off; and this, it is evident, is the reſult of experience; without which, from the faintneſs and littleneſs, I ſhould not have inferred any thing concerning the diſtance of objects.

* I have taken the liberty to alter ſome expreſſions, by reaſon of the permiſſion he gave, ſec. 120, but in entire conformity with his ſentiments.

§ 4

§ 4.

417. But, when an object is placed at ſo near a diſtance, as that the interval between the eyes bears any ſenſible proportion to it, the opinion of ſpeculative men is, that the two optic axes, concurring at the object, do there make an angle, by means of which, according as it is greater or leſſer, the object is perceived to be nearer or further off.

§ 5.

418. Betwixt which, and the foregoing method of eſtimating diſtance, there is this remarkable difference, that whereas there was no apparent neceſſary connexion between ſmall diſtance and a large and ſtrong appearance, or between great diſtance and a little and faint appearance, there appears a very neceſſary connexion between an obtuſe angle and near diſtance, and an acute angle and further diſtance; it does not in the leaſt depend on experience, but may be evidently known by any one before he had experienced it, that the nearer the concurrence of the optic axes, the greater the

angle, and the remoter their concurrence is, the lesser will be the angle comprehended between them.

§ 6.

419. There is another way mentioned by optic writers, whereby they will have us judge of those distances in respect to which the breadth of the pupil hath any sensible bigness, and that is the greater or lesser divergency of the rays, which issuing from the visible point do fall on the pupil; that point being judged nearest, which is seen by most diverging rays, and that remoter which is seen by less diverging rays; and so on, the apparent distance still increasing as the divergency decreases, till at length it becomes infinite, when the rays that fall on the pupil are to sense parallel. And in this manner it is said we perceive distance when we look only with one eye.

§ 7.

420. In this case also, it is plain we are not beholden to experience, it being a certain necessary

necessary truth, the nearer the direct rays falling on the eye approach to a parallelism, the further off is the point of intersection, or visible point from which they flow.

§ 8 and 9.

421. Now, though the accounts, here given, are received for true, yet they seem unsatisfactory: it is evident that when the mind perceives any thing, not immediately, and of itself, it must be by the means of some other perception: thus, for instance, the passions which are in the mind of another, are of themselves to me invincible ; I may nevertheless perceive them by sight, though not immediately, yet by means of the colours they produce in the countenance. We often see shame or fear in the looks of a man, by perceiving the changes in his countenance to red or pale.

§ 10.

422. Moreover it is evident, that nothing which is not itself perceived can be the means

of perceiving any other thing: if I do not perceive the redneſs or paleneſs of a man's face, it is impoſſible I ſhould perceive, by them, the paſſions which are in his mind.

§ 11.

423. Now it is plain that diſtance, being in its own nature imperceptible, and yet it is perceived by ſight; it remains, therefore, that it be brought into view by ſome other perception, that is itſelf immediately perceived in act of viſion.

§ 12.

424. But thoſe lines and angles, by means whereof ſome men pretend to explain the perception of diſtance, are themſelves not at all perceived; nor are they, in truth, ever thought of by thoſe unſkilled in optics. I appeal to any one's experience, whether, upon ſight of an object, he computes its diſtance, by the bigneſs of the angle made by the meeting of the two optic axes? or whether he ever thinks of the greater or leſſer divergency of

of the rays which arrive from any point to his pupil? In vain ſhall any man tell me, that I perceive certain lines and angles which introduce into my mind the various judgments of diſtance, ſo long as I myſelf am conſcious of no ſuch thing.

§ 16.

425. Now it being already ſhewn, that diſtance is ſuggeſted to the mind by the mediation of ſomething elſe, which is itſelf perceived in the act of viſion, it remains that we inquire what ſenſations there be that attend viſion, unto which we may ſuppoſe the judgments of diſtance are annexed, and by which they are introduced into the mind. And, *firſt*, it is certainly experience, that when we look at a near object with both eyes, according as it approaches or recedes from us, we alter the diſpoſition of our eyes, by leſſening or widening the interval between the pupils; this diſpoſition or turn of the eyes is attended with a ſenſation which ſeems to be that which, in this caſe, brings the judgment of greater or leſſer diſtance into the mind,

§ 17.

426. Not that there is any natural or neceſſary connexion between the ſenſation we perceive by the turn of the eyes, and the greater or leſſer diſtance; but becauſe the mind has, by conſtant experience, found the different ſenſations, correſponding to the different diſpoſitions of the eyes, to be attended, each, with a different degree of diſtance in the object, there has grown an habitual or cuſtomary connexion between them; ſo that the mind no ſooner perceives the ſenſation ariſing from the different turn it gives the eyes, in order to bring the pupils nearer or further aſunder, but it withal infers the different diſtance which was wont to be connected with that ſenſation: juſt as upon hearing a certain ſound, the ſignification is immediately ſuggeſted to the underſtanding, which cuſtom hath united with it.

§ 19.

§ 19.

427. I know it is a received opinion, that by altering the diſpoſition of the eyes, the mind perceives whether the angle of the optic axes. or the lateral angles comprehended between the interval of the eyes and the optic axes, are made greater or leſſer; and that, accordingly, by a kind of natural geometry, it judges the point of their interſection to be nearer or further off: but, that this is not true, I am convinced by my own experience, ſince I am not conſcious that I make any ſuch uſe of the perception I have by the turn of my eyes; and for me to make thoſe judgments, and draw thoſe concluſions, without knowing that I do ſo, ſeems altogether incomprehenſible.

§ 20.

428. From all which it follows, that the judgment we make of the diſtance of an object ſeen with both the eyes, is entirely the reſult of experience: if we had not conſtantly

 found

found certain ſenſations ariſing from the various diſpoſition of the eyes, attended with certain degrees of diſtance, we ſhould never make thoſe ſudden judgments from them, concerning the diſtance of objects, no more than we would pretend to judge of a man's thoughts by his pronouncing words we had never heard before.

§ 25.

429. That one perception may ſuggeſt another to the mind, it will ſuffice that they have been obſerved to go together, without any demonſtration of the *neceſſity* of their coexiſtence, or without ſo much as knowing what it is that makes them ſo to co-exiſt: of this there are innumerable inſtances, of which no one can be ignorant.

§ 28.

430. I have here ſet down thoſe ſenſations, that ſeem to be the conſtant and general occaſions of introducing into the mind the different judgments of near diſtance; it is true, in

in moſt caſes, that divers other circumſtances contribute to frame our judgment of diſtance; to wit, the particular number, ſize, kind, &c. of the thing ſeen: concerning which, and all the other forementioned occaſions, which ſuggeſt diſtance, I ſhall only obſerve, they have none of them, in their own nature, any relation or connexion with it; nor is it poſſible they ſhould ever ſignify the various degrees thereof, otherwiſe than as, by experience, they have been found to be connected with them.

§ 38.

431. There may be good uſe made of lines and angles in optics; not that the mind judgeth of diſtance immediately by them, but becauſe it judgeth by ſomewhat which is connected with them, and to the determination of which they may be ſubſervient.

§ 41.

432. Hence it is a manifeſt conſequence, that a man born blind, being made to ſee, would at firſt have no knowledge of diſtance by ſight; the ſun and ſtars, the remoteſt objects as well as the nearer, would all ſeem to be in his eye, or rather in his mind; the objects intromitted by ſight, would ſeem to him, as in truth they are, no other than a new ſet of thoughts or ſenſations, each of which is as near to him as the perceptions of pain or pleaſure: for our judging objects perceived by ſight to be at any diſtance, is entirely the effect of experience, which one in thoſe circumſtances could not yet have attained to.*

* This has been fully confirmed by Dr. Cheſelden, nineteen years after Berkeley's prediction, for, having couched a youth born blind, he relates, that when firſt he obtained his ſight, he was ſo far from making any judgment about diſtances, that he thought all objects whatever touched his eyes, as what he felt did his ſkin. 7 Phil. Tranſ. Abr. p. 491. 492. See above, the note on N°. 414.

§ 43.

§ 43.

433. And perhaps, on a ſtrict examination, we ſhall not find, that even thoſe who, from their birth, have grown up in a continued habit of ſeeing, are irrecoverably prejudiced on the other ſide; to wit, in thinking what they ſee to be at a diſtance from them; for at this time it ſeems agreed on all hands, by thoſe who have had any thoughts of that matter, that colours, which are the proper and immediate object of ſight, are not without the mind: but then it will be ſaid, by ſight we have alſo the perception of extenſion, and figure, and motion, all which may well be thought without, and at ſome diſtance from the mind, though colours ſhould not. In anſwer to this, I appeal to any man's experience, whether the viſible extenſion of any object doth not appear as near to him as the colour of that object; nay, whether they do not both ſeem to be in the very ſame place: is not the extenſion we ſee coloured, and is it poſſible for us, ſo much as in thought, to ſeparate and abſtract colour from extenſion? now

where

where the extenſion is, there ſurely is the figure, and there the motion too. I ſpeak of thoſe which are perceived by ſight.

§ 44.

434. But for a fuller explanation of this point, and to ſhew that the immediate objects of ſight are not even the reſemblances of things placed at a diſtance, it is requiſite that we look nearer into the matter, and carefully obſerve what is meant when one ſays, that which he ſees is at a diſtance from him. Suppoſe, for inſtance, that looking at the moon I ſhould ſay it were 50 or 60 ſemidiameters of the earth from me, let us ſee what moon this is ſpoken of; it is plain it cannot be exactly that which is viſible, or any thing like it, for that which I ſee is only a round luminous plain of about 30 viſible points in diameter; and, in caſe I am carried from the place where I ſtand, directly towards the moon, it is manifeſt its appearance varies ſtill as I go along, and, by the time I have advanced 50 or 60 ſemidiameters of the earth, I ſhall be ſo far from being near a little round

luminous

luminous flat, that I ſhall perceive nothing like it, this object having long ſince diſappeared. Again, ſuppoſe I perceive, by ſight, the faint and obſcure viſion of ſomething, which I doubt whether it be a man or a tree, or a tower, but judge it to be at the diſtance of about a mile, it is plain I cannot mean, that exactly what I ſee is a mile off, or that it is the image or likeneſs of any thing which is a mile off, ſince, every ſtep I take towards it, the appearance alters, and from being obſcure, ſmall, and faint, grows clear, large, and vigorous; and when I come to the mile's end, that which I ſaw firſt is quite loſt, neither do I find any thing like it.

§ 45.

435. In theſe and the like inſtances, the truth of the matter ſtands thus: having of a long time experienced certain ſenſations, perceivable by touch, as diſtance, tangible figure, and ſolidity, to have been connected with certain ſenſations of ſight, I do, on perceiving theſe laſt, forthwith conclude what tangible ſenſations are, by the uſual courſe of na-

ture,

ture, likely to follow; looking at an object, I perceive a certain viſible figure and colour, with ſome degree of faintneſs, and other circumſtances, which, from what I formerly obſerved, determine me to think, that if I advance forwards ſo many paces, or miles, I ſhall be affected with ſuch or ſuch ſenſations of touch: ſo that, in truth and ſtrictneſs of ſpeech, I neither ſee diſtance itſelf, nor any thing I take to be at a diſtance. I ſay, neither diſtance, nor things placed at a diſtance, are themſelves perceived by ſight: and I believe, whoever will look narrowly into his own thoughts, and examine what he means, by ſaying he ſees this or that thing at a diſtance, will agree with me, that what he ſees, only ſuggeſts to his underſtanding, that after having paſſed a certain diſtance, to be meaſured by the motion of his body, which is perceivable by touch, he ſhall come to perceive ſuch and ſuch tangible ſenſations, which have been uſually connected with ſuch and ſuch viſible ſenſations; but that one may be deceived by theſe ſuggeſtions, and that there is no neceſſary connexion between viſible and

tangible ſenſations ſuggeſted by them, we need go no further to prove, than to the next looking-glaſs or picture.

§ 46.

436. From what we have ſhewn, it is a manifeſt conſequence, that the notions of *ſpace, outneſs,* and things placed at a diſtance, are not, ſtrictly ſpeaking, the objects of ſight; they are not otherwiſe perceived by the eye, than by the ear: ſitting in my ſtudy, I hear a coach drive along the ſtreet; I look through the caſement and ſee it; I walk out and enter into it; common ſpeech would incline me to think, I heard, ſaw, and touched the ſame thing, to wit, the coach: it is nevertheleſs certain, the ſenſations intromited by each ſenſe are widely different and diſtinct from each other; but having been obſerved conſtantly to go together, they are ſpoken of as one and the ſame thing: by the variation of the noiſe, I perceive the different diſtances of the coach, and know that it approaches, before I look out; thus, by the ear I perceive diſtance, juſt after the ſame manner as I do by the eye.

§ 47.

§ 47.

437. I do not neverthelefs fay, I hear diftance, in like manner as I fay that I fee it, the fenfations of hearing not being fo apt to be confounded with the fenfations of touch as thofe of fight are; fo likewife a man is eafily convinced, that bodies are not properly the objects of hearing, but only founds, by the mediation whereof the perception of this or that body is fuggefted to his thoughts; but then one is with more difficulty brought to difcern the difference there is between the fenfations of fight and touch: though it be certain a man no more fees and feels the fame thing, than he hears and feels the fame thing.

§ 48.

438. One reafon of which feems to be this; it is thought a great abfurdity to imagine, that one and the fame thing fhould have any more than one extenfion and one figure; but the extenfion and figure of a body being let into the mind two ways, and that indifferently

ferently either by ſight or touch, it ſeems to follow, that we ſee the ſame extenſion and the ſame figure which we feel.

§ 49.

439. But if we take a cloſe and accurate view of things, it muſt be acknowledged, that we never ſee and feel the ſame object; that which is ſeen is one thing, and that which is felt is another. If the viſible figure and extenſion is not the ſame with the tangible figure and extenſion, we are not to infer that one and the ſame thing has divers extenſions; the true conſequence is, that the objects of ſight and touch are two diſtinct things. It may perhaps require ſome thought, rightly to conceive the diſtinction; and the difficulty ſeems not a little increaſed, becauſe the combination of viſible ſenſations hath conſtantly the ſame name as the combination of tangible ſenſations wherewith it is connected, which doth of neceſſity ariſe from the uſe and end of language.

§ 50.

440. In order therefore to treat accurately and unconfufedly of vifion, we muft bear in mind, that there are two forts of objects apprehended by the eye; the one primarily and immediately, the other fecondarily and by the intervention of the former. Thofe of the firft fort neither are nor appear to be without the mind, or at any diftance off; they may indeed grow greater or fmaller, more confufed or more clear, or more faint, but they do not, cannot, approach or recede from us; whereas we fay an object is at a diftance, whenever we fay it draws near or goes further off; we muft always mean it of the latter fort, which properly belong to the touch, and are not fo truly perceived as fuggefted by the eye, as thoughts by the ear.

§ 51.

441. No fooner do we hear the words of a familiar language pronounced in our ears, but

but the ideas correſponding thereto are ſuggeſted in the very ſame inſtant the ſound and the meaning enter the underſtanding: ſo cloſely are they united, that it is not in our power to keep out the one, except we exclude the other alſo; we even act in all reſpects as if we heard the very thoughts themſelves. So likewiſe the ſecondary objects, or thoſe which are only ſuggeſted by ſight, do often more ſtrongly affect us, and are more regarded than the proper objects of that ſenſe: hence it is we find it ſo difficult to diſcriminate between the immediate and mediate objects of ſight.

§ 52.

OF THE MAGNITUDE OF OBJECTS PERCEPTIBLE BY SIGHT.

442. It is the opinion of ſome, that we perceive it by angles, or by angles in conjunction with diſtance: but neither angles nor diſtance being perceivable by ſight, and the things we ſee being, in truth, at no diſtance from us, it follows that, as we have ſhewn lines and angles not to be the medium

the mind makes uſe of, in apprehending the apparent place of objects, ſo neither are they the medium whereby it apprehends their apparent magnitude.

§ 53.

443. It is well known, that the ſame extenſion at a near diſtance ſhall ſubtend a greater angle, and at a further diſtance a leſſer angle; and by this principle we are told the mind eſtimates the magnitude of an object, comparing the angle with which it is ſeen, with its diſtance. What inclines men to this miſtake (beſides the humour of making one ſee by geometry) is, that the ſame perceptions which ſuggeſt diſtance, do alſo ſuggeſt tangible magnitude; but if we examine it, we ſhall find they ſuggeſt the latter as immediately as the former: I ſay, they do not firſt ſuggeſt diſtance, and then leave it to the judgment to uſe that as a medium, whereby to collect the tangible magnitude, but they have as cloſe and immediate a connexion with the magnitude as with the diſtance, and ſuggeſt

gest it as independently of distance, as they do distance independently of magnitude.

§ 54.

444. It hath been shewn there are two sorts of objects apprehended by sight, each whereof hath its distinct magnitude or extension; the one properly *tangible*, i. e. to be perceived and measured by touch, and not immediately falling under the sense of seeing; the other properly and immediately visible, by mediation of which the former is brought in view.* Each of these magnitudes are greater or lesser, according as they contain in them more or fewer points, they being made up of points, or *minimums*; for, whatever may be said of extension, in the abstract, it is certain, sensible extension is not infinitely divisible. There is a *minimum tangibile* and a *minimum visible*, beyond which sense cannot perceive. This every one's experience will inform him.

* That magnitude is perceived immediately by sight, is evident from Chefelden's Experiment; for the boy who obtained the power of seeing thought the things he saw extremely large. Yet quere.

§ 55.

445. The magnitude of the object, which is barely ſuggeſted and is at a diſtance, continues always invariably the ſame; but the viſible object, ſtill changing as you approach to, or recede from the tangible object, it hath no fixed and determinate greatneſs; whenever, therefore, we ſpeak of the magnitude of any thing, for inſtance, a tree or a houſe, we muſt mean the tangible magnitude, otherwiſe there can be nothing ſteady and free from ambiguity ſpoken of it; but though the tangible and viſible magnitudes, in truth, belong to two diſtinct objects, I ſhall, nevertheleſs, (eſpecially ſince thoſe objects are called by the ſame name, and are obſerved to coexiſt) to avoid tediouſneſs and ſingularity of ſpeech, ſometimes ſpeak of them as belonging to one and the ſame thing.

§ 56.

446. Now in order to diſcover by what means the magnitude of tangible objects is perceived

perceived by ſight, I need only reflect on what paſſes in my own mind, and obſerve what thoſe things be which introduce the judgment of greater or leſſer into my thoughts, when I look on any object; and theſe I find to be, firſt, the magnitude or extenſion of the viſible object, which being immediately perceived by ſight, is connected with that other which is tangible and placed at a diſtance; ſecondly, the confuſion or diſtinctneſs; and, thirdly, the vigorouſneſs or faintneſs of the aforeſaid viſible appearance; *cæteris paribus*, by how much the greater or leſſer the viſible object, by ſo much the greater or leſſer do I conclude the tangible object to be; but be the viſible ever ſo large, yet, if it be withal confuſed, I judge the magnitude of the thing to be but ſmall; if it be diſtinct and clear, I judge it greater.

§ 57.

447. Moreover the judgment we make of magnitude, do, in like manner as thoſe of diſtance, depend on the diſpoſition of the eye; alſo on the figure, number, and ſituation, of

objects, and other circumſtances that have been obſerved to attend ſmall tangible magnitudes; thus, for inſtance, the very ſame quantity of viſible extenſion, which in the figure of a tower, doth ſuggeſt the judgment of great magnitude, ſhall in the figure of a man ſuggeſt the judgment of a much ſmaller magnitude: that this is owing to the experience we have of the uſual bigneſs of a tower and a man, no one I ſuppoſe need be told.

§ 60.

448. A man placed at ten feet diſtance, is thought as great as if he were placed at the diſtance of only five feet; which is true, not with relation to the viſible, but tangible greatneſs of the object, the viſible magnitude being far greater at one ſtation than it is at the other.

§ 61.

449. Inches, feet, &c. are ſettled ſtated lengths, whereby we meaſure objects and eſtimate their magnitude; now that theſe

cannot

cannot be mere viſible inches, &c. is evident, becauſe a viſible inch is itſelf no conſtant determinate magnitude, and cannot therefore ſerve to mark out and determine the magnitude of any other thing; and to ſay this or that number of inches, ſhall imply no more than it is extended, without bringing any particular judgment into the mind. Further, an inch and a foot, from different diſtances, ſhall both exhibit the ſame viſible magnitude, and yet at the ſame time you ſhall ſay, that one ſeems ſeveral times greater than the other. From all which it is manifeſt, that the judgments we make of the magnitudes of objects by ſight, are altogether in reference to their tangible extenſion, and not the viſible extenſion, which, though immediately perceived, is little noticed.

§ 85.

450. When we look through a microſcope, we neither ſee more viſible points, nor are the collateral points more diſtinct, than when we look with the naked eye at objects placed at a due diſtance: it brings us, as it were, into a new world; it preſents us with a new ſcene

 of

of visible objects, quite different from what we behold with the naked eye; but, whereas the objects perceived by the eye alone, have a certain connexion with tangible objects, whereby we are taught to foresee what will ensue on the approach or application of distant objects to the parts of our own bodies, which conduce to their preservation, there is not the like connexion betwixt things tangible and those visible objects that are perceived by the help of a fine microscope. When I look through a microscope, my aim is to know what sensations are connected with each other: the more a man knows of the connexion of these, the more he is said to know of nature. (Third Dialogue of Hylas and Philonous).

Of Situation.

§ 93.

451. It is certain, that a man actually blind, and who had continued so from his birth, would, by the sense of feeling, obtain the knowledge of upper and lower; by the motion of his hand, he might discern the situation of any tangible object placed within his

his reach. That part on which he felt himſelf ſupported, or towards which he perceived his body to gravitate, he would term *lower*, and the contrary to this, *upper*, and accordingly denominate whatever objects he touched.

§ 94.

452. But, then, whatever judgments he makes concerning the ſituation of objects, are confined to thoſe only that are perceivable by touch; all thoſe things that are intangible, as his thoughts, deſires, or paſſions, and in general all the modifications of his ſoul, to theſe he would never apply the terms upper and lower, except only in a metaphorical ſenſe.

§ 95.

453. Whence it plainly follows, that ſuch a one, if made to ſee, would not at firſt ſight think that any thing he ſaw was high or low, as ſhewn § 41. The proper objects of viſion make a new ſet of perceptions perfectly diſtinct and different, and which can in no ſort be perceived by touch; there is nothing to induce him to think thoſe terms applicable to them;

them; nor would he ever think it until he obſerved their connexion with tangible objects.

§ 99.

454. When he has, by experience, learned the connexion there is between the ſeveral ſenſations by ſight and touch, he will be able, by the perception he has of the ſituation of viſible things, in reſpect of one another, to make a ſudden and true eſtimate of the ſituation of tangible things correſponding to them; and thus perceive, by ſight, the ſituation of objects which do not properly fall under that ſenſe.

Of Figure.

§ 105.

455. As the viſible magnitude hath no connexion with the tangible, it is plain the viſible figure hath no neceſſary connexion with the tangible figure, ſo as at firſt ſight to introduce it into the mind: for figure is the termination of magnitude.

§ 106.

456. Hence we may clearly deduce, that in

in the firſt act of viſion, no perception entering by the eye would have a perceivable connexion with the ſenſations to which the names *man*, *head*, *foot*, were annexed in the underſtanding of a man blind from his birth, ſo as to make themſelves be called by the ſame names, and reputed the ſame things with them, as afterwards they come to be.

§ 107.

457. There remains, however, one difficulty which may ſeem to preſs hard upon our opinion; for though it be granted, that neither the colour, ſize, nor figure of the viſible feet, have any neceſſary connexion with the ſenſations that compoſe the tangible feet; yet it remains undeniable, that the number of the viſible feet being the ſame as that of the tangible feet, I may, without any experience, reaſonably conclude, that they repreſent, or are connected with, the feet, rather than with the head. It ſeems that the ſight of two viſible feet will ſooner ſuggeſt to the mind the idea of two tangible feet, than of one head; ſo that the blind man, upon the firſt reception of the viſive faculty, might know which were the

the feet, or number *two*, and which the head, or number *one*.

§ 108.

458. To get clear of this feeming difficulty, we need only obferve, that diverfity of vifible objects doth not neceffarily infer diverfity of tangible objects, correfponding with them. A picture painted with a great variety of colours, affects the touch in one uniform manner; it is therefore evident, that I do not neceffarily judge of the number of things tangible from the number of things vifible; how therefore can I, before experience teaches me, that the vifible legs, becaufe two, are connected with the tangible legs; or that the vifible head, becaufe *one*, is connected with the tangible head? The things I fee, are fo very different and heterogeneous from the things I feel, that the perception of the one would never have fuggefted the other to my thoughts until I had experienced their connexion.

§ 124

459. It is commonly faid, that the object of

of geometry is abſtract extenſion; but geometry contemplates figures: now figure is the termination of magnitude, but extenſion, in the abſtract, hath no finite magnitude, whence it clearly follows it can have no figure, and conſequently is not the object of geometry. And though it is commonly held, that all general truths are concerning univerſal abſtract ideas, without which, we are told, there could be no ſcience, no demonſtration of any general propoſition in geometry, it were no hard matter, were it now neceſſary, to ſhew that propoſitions and demonſtrations in geometry might be univerſal, though they who make them, never think of abſtract general ideas of triangles or circles.*

§ 128.

460. When, on perceiving any thing, I range it under this or that ſort of perception, it is becauſe it is perceived after the ſame manner, or becauſe it has a likeneſs or conformity with, or affects me in the ſame way as, perceptions of the ſort I rank it under.

* See Chap. 3.

In

In ſhort, it muſt not be entirely new, but have ſomething in it old and already perceived by me: it muſt, I ſay, have ſo much, at leaſt, in common with the perceptions I have before known and named, as to make me give it the ſame name with them: but it has been, if I miſtake not, clearly made out, that a man born blind, would not, at firſt reception of his ſight, think the things he ſaw were of the ſame nature with the objects of touch, or had any thing in common with them, but that they were a new ſet of ſenſations, perceived in a new manner, and entirely different from all he had ever perceived before: ſo that he would not call them by the ſame name, nor repute them to be of the ſame ſort, with any thing he had hitherto known. Note, this was fully confirmed by Cheſelden's experiment; for, the boy, on being made to ſee, could not diſtinguiſh a cat from a dog, nor know by ſight the cat, he before knew by the touch.

§ 130.

461. It is a prevailing opinion, even among thoſe who have thought and written moſt accurately concerning our ideas, that ſomething

thing more is perceived by ſight, than barely light and colours, with their variations. Mr. Locke terms ſight the moſt comprehenſive of all our ſenſes, conveying to our minds the ideas of light and colours, which are peculiar only to that ſenſe; and alſo the far different ideas of ſpace, figure, and motion, B. 2. chap. 9. § 9. Space, or diſtance, we have ſhewn, is not otherwiſe the object of ſight, than of hearing; Vid. § 46. And as for figure and extenſion, I leave it to any one, that ſhall calmly attend to his own clear and diſtinct ideas, to decide whether he has any perception intromitted immediately and properly by ſight, ſave only light and colours; but by the mediation of theſe, far different ideas are ſuggeſted; but ſo they are by hearing, which beſides ſounds, doth by their mediation ſuggeſt not only ſpace, figure, and motion, but alſo all other ideas whatſoever, that can be ſignified by words.

§ 132.

462 A further confirmation may be drawn from the ſolution of Mr. Molineaux's Problem, publiſhed by Mr. Locke, in his Eſſay: "ſuppoſe a man

a man born blind, and now adult, and taught by his touch to diſtinguiſh between a cube and a ſphere of the ſame metal, and nearly of the ſame bigneſs, ſo as to tell when he felt one and the other which is the cube and which the ſphere, and ſuppoſe both placed on a table, and the blind man made to ſee; quere, whether by his ſight, without touching them, he could now diſtinguiſh and tell which is the globe and which the cube? To which the propoſer anſwers, *not*; for, though he has had experience how the globe and how the cube affects his touch, yet he has not yet attained the experience, that what affects his touch ſo or ſo, muſt affect his ſight ſo or ſo: or that a protuberant angle in the cube, that preſſed his hand unequally, ſhall appear to his eye as it doth in the cube." I agree with my friend, in his anſwer to this problem, and am of opinion, that the blind man, at firſt ſight, would not be able with certainty to ſay, which was the globe, which the cube, whilſt he only ſaw them. Locke, B. 2. chap. 9. ſec. 8.*

* See this queſtion well treated in the Memoirs of Berlin, for 1770, and the following years.

§ 133.

463. Now if a ſquare ſurface perceived by touch, be of the ſame ſort with a ſquare ſurface perceived by ſight, it is certain the blind man here mentioned might know a ſquare ſurface as ſoon as he ſaw it: ſince therefore he is ſuppoſed to have known by his touch, that a cube is a body terminated by ſquare ſurfaces, and that a ſphere is not, upon the ſuppoſition that a viſible and a tangible ſquare differ only *in numero*, it follows that he might know, by the unerring mark of the ſquare ſurfaces, which was the cube and which not, while he only ſaw them; elſe the ſolution given by theſe two thoughtful and ingenious men is wrong.

Of viſible Motion.

464. That viſible motion is not of the ſame ſort as tangible motion, ſeems to need no further proof, it being an evident corollary, from what we have ſhewn, concerning the difference

between visible and tangible extension; but, for a more express proof hereof, we need only observe, that one who had not yet experienced vision, would not at first sight know motion; whence it follows, that motion perceivable by sight, is of a sort distinct from motion perceivable by touch; which I prove thus; by touch he could not perceive any motion but what was up or down, to the right or left, nearer or further from him. Besides these and their several complications, it is impossible he should have any idea of motion; he would not therefore think any thing to be motion, or give the name *motion* to any perception, which he could not range under some or other of those particular kinds thereof: but, from sec. 95, it is plain, by the mere act of vision, he could not know motion upwards or downwards, to the right or left, or in any other possible direction; therefore he would not know motion at all at first sight.

§ 139.

465. It may be asked, how visible extension and figures come to be called by the same

name with tangible extenſion and figures, in all ages and nations, if they are not of the ſame kind?

§ 140.

466. To which I anſwer, we can no more argue a viſible and tangible ſquare to be of the ſame ſpecies, from their being called by the ſame name, than we can, that a tangible ſquare, and the monoſyllable conſiſting of ſix letters whereby it is marked, are of the ſame ſpecies, becauſe they are both called by the ſame name. It is cuſtomary to call written words and the things they ſignify by the ſame name; for words not being regarded for their own ſake, or otherwiſe than as they are marks of things, it were ſuperfluous, and beſide the deſign of language, to have given them names diſtinct from thoſe of the things marked by them: the ſame reaſon holds here alſo. Viſible figures are the marks of tangible figures; in themſelves they are little regarded, or upon any other ſcore than for their connexion with tangible figures, which by nature they are ordained to ſignify; we regard the objects that

environ us, in proportion as they are adapted to benefit or injure our own bodies, and thereby produce in our minds the ſenſations of pleaſure or pain; now bodies operating on our organs by an immediate application, and the hurt or advantage ariſing therefrom depending altogether on the tangible and not on the viſible qualities of any object, this is a plain reaſon why thoſe ſhould be regarded by us, much more than theſe: and for this end the viſive faculty ſeems to have been beſtowed on animals, that by the perception of viſual ſenſations they may be able to foreſee, from the experience they have had, what tangible ſenſations are connected with ſuch or ſuch viſual ſenſations. And becauſe this language doth not vary in different ages or nations, hence it is, that in all times and places, viſible figures are called by the ſame names as the reſpective tangible figures ſuggeſted by them, and not becauſe they are alike, or of the ſame ſort with them.

§ 141.

§ 141.

467. But, ſay you, a tangible ſquare is liker to a viſible ſquare than to a viſible circle; it has four angles and as many ſides; ſo alſo has a viſible ſquare; but the viſible circle has no ſuch thing, being bounded by one uniform curve, without right lines or angles, which makes it unfit to repreſent the tangible ſquare; from whence it ſeems to follow, that viſible figures are patterns of, or of the ſame ſpecies as the reſpective tangible figures repreſented by them; that they are like to them, and of their own nature fitted to repreſent them, and in no reſpect arbitrary, as words are.

§ 142.

468. I anſwer, it muſt be acknowledged, the viſible ſquare is fitter than the viſible circle to repreſent the tangible ſquare: but it is not becauſe it is liker, or more of a ſpecies with it, but becauſe it contains in it ſeveral diſtinct parts, whereby to mark the ſeveral diſtinct correſponding parts of a tangible ſquare.

 The

The ſquare perceived by the touch, hath four diſtinct equal ſides and four diſtinct equal angles; it is therefore neceſſary, that the viſible figure which ſhall be moſt proper to mark it, contain four diſtinct equal parts, whereby to denote the four equal angles of the tangible ſquare, and four diſtinct equal parts correſponding to the four ſides of the tangible ſquare.

§ 143.

469. But it will not hence follow, that any viſible figure is like unto, that is, of the ſame ſpecies with its correſponding tangible figure, unleſs it be ſhewn, that not only the *number* but the *kind* of parts, be the ſame in both, no more than that a wooden and a metallic ſquare are of the ſame ſpecies. To illuſtrate this, I obſerve, that viſible figures repreſent tangible figures, much after the ſame manner that written words do ſounds. Now in this reſpect, words are not arbitrary, it not being indifferent what written word ſtands for any ſound, for it is requiſite that each word contain in it ſo many diſtinct characters as there

are variations in the ſounds it ſtands for; thus the ſingle letter *a* is proper to mark one ſimple uniform ſound, and the word *adultery* is accommodated to repreſent the ſound annexed to it: in the formation thereof, there being eight different colliſions or modifications of the air by the organs of ſpeech, each of which produces a difference of ſound, it was fit the word repreſenting it ſhould conſiſt of as many diſtinct characters, thereby to mark each particular difference or part of the whole ſound; and yet nobody, I preſume, will ſay, the ſingle letter *a*, or the word *adultery*, are like unto, or of the ſame ſpecies with the reſpective ſounds by them repreſented.

§ 144.

470. It muſt be confeſſed, that we are not ſo apt to confound other ſigns with the things ſignified, or to think them of the ſame ſpecies, as we are viſible and tangible ſenſations; but a little conſideration will ſhew us how this may be, without our ſuppoſing them of a like nature. Theſe ſigns are conſtant and univerſal; their connexion with tangible ſenſations has been learnt from our firſt entrance into the

 world,

world, and ever ſince, almoſt every moment of our lives, it has been occurring to our thoughts, and ſtriking deeper into our minds: when we obſerve that ſigns are variable, and of human inſtitution; when we remember there was a time they were not connected in our minds with thoſe things they now ſo readily ſuggeſt, but their ſignification learned by the ſlow ſteps of experience; this preſerves us from confounding them. But when we find the ſame ſigns ſuggeſt the ſame things all over the world; when we know they are not of human inſtitution, and cannot remember that we ever learned their ſignification, but think that at firſt ſight they would have ſuggeſted to us the ſame things they do now; all this perſuades us they are of the ſame ſpecies as the things reſpectively repreſented by them, and that it is by a natural reſemblance they ſuggeſt them to our minds, independently of experience,

§ 147.

471. Upon the whole, I think we may fairly conclude, that the proper objects of viſion conſtitute an univerſal language of the Author

Author of nature, whereby we are inſtructed how to regulate our actions, in order to attain thoſe things which are neceſſary for the preſervation and well-being of our bodies, as alſo to avoid whatever may be hurtful and deſtructive of them.

SECT. V.

OF TACTILE SENSATIONS, OR WHICH APPERTAIN TO THE SENSE OF TOUCH.

472. Of all ſenſations, the moſt important to us are the tactile, which we receive by the organs of touch diſperſed all over our bodies: ſuch is the general ſenſation of reſiſtance, which comprehends hardneſs or ſolidity, ſoftneſs or fluidity, roughneſs, ſmoothneſs, ſharpneſs, bluntneſs, heat, cold, and motion; and the continuation of any of them, which is called extenſion; alſo their various degrees; to which we may add various ſenſations, whether afflictive or pleaſurable, manifeſt and diſtinct, or obſcure and undefined; ſuch as various pains, aches, laſſitude or reſt, refreſhment, exerciſe, drowſineſs, &c.

473. *Nota*, the abſtract terms here employed,

ployed, do not denote any abstract qualities, but are used merely as abbreviations.

474. The various sensations of *resistance* are those, which we in general call *bodies*,* whether the resistance be made by them, as that made by the grosser bodies; or that made to the most subtle, as light and electricity. They are impressed on our minds by the author of nature, according to certain constant laws, connected with each other, and varied in various circumstances, but uniform in the same: these assure us of the reality of things, and distinguish them from dreams and fictions of imagination. Hence also those bodies which present the least resistance, were by many deemed of a spiritual nature.

475. The order, regularity, and consistency, of sensations of any kind, discovered by experience, form what is called the usual *course of*

* Dr. Berkeley having improperly called these sensations *ideas*, unfortunately gave occasion to his opponents to confound them with ideas of imagination, or mere fictions, though he expressly called them *ideas of sense*, and declared he called them *ideas*, only because, like ideas of imagination, they exist only in the mind. Principles, sec. 33, 38, 90, 91, 95; and in his Third Dialogue. This Dr. Reid has the candour to acknowledge.

nature,

nature, being grounded on laws independent of the will of man, and hence called the *laws of nature*.

476. The *names* of bodies comprehend all the ſenſations, whether of colour, ſmell, taſte, figure, that accompany them, or belong to them; and all their phyſical properties, as flexibility, elaſticity, electricity; and alſo the various phænomena they exhibit, in chymical experiments. Beſides theſe properties nothing elſe can be found in them; when ſeparately conſidered, they are often called the qualities or properties of the aggregate on which a name is beſtowed. Thus a *roſe* denotes a vegetable of a red or white colour, of a peculiar ſmell, taſte, and figure; which colours, and ſmell, and figure, are called its *qualities*, or properties. So *gold* is a name given to the ſenſation of a peculiar hardneſs, weight, extenſibility, and fuſibility, accompanied with a ſhining yellow colour, and exhibiting various phænomena, when chymically examined.

477. The ſenſation of reſiſtance, when conſiderable, conſtitutes what is called *hardneſs*, or a hard body; as the ſenſation of ſweetneſs conſtitues what is called ſweetneſs, or a ſweet

body.

body. When the refiftance is lefs confiderable, fo as to yield without pain to a flight impreffion, the body is denominated *foft*. When ftill lefs confiderable, it conftitutes a *liquid*. And when its refiftance, while at reft and unconfined, is fcarcely perceptible, and it is alfo invifible for the moft part, it is called *a fluid*. All thefe modifications of refiftance are fufceptible of various degrees; even electron, caloric, and light, meet with fome.

478. *To feel* is to receive a fenfation by the touch, as to *hear* is to receive a found by the ear, and to *fee* is to perceive a colour or light; to *tafte* or *fmell*, is to receive one or other of their different fpecies refpectively; the only difference is, that we learn by experience to connect colours, found, taftes, and fmells, with certain tangible fenfations, and their affociation or union we call *things*; thus we fay, a *coloured thing*, an audible thing, a fweet things, &c.; but a tactile fenfation being referable to no other fave the above, and not always to any of them, for inftance in the dark, or thofe of the blind, is fimply called a *thing* or *reality*; more efpecially as it is to us of the greateft importance: even bodily pain is called

a thing,

a thing; ſo we ſay the gout is a painful thing. It is plain that, in all theſe caſes, the word *thing* denotes nothing more than a ſenſation, or a group of ſenſations: nay this word has been applied, though figuratively, even to ideas of imagination, as in the ſecond Pſalm, "why did the people *imagine a vain thing*."

479. Hence to feel hardneſs, ſoftneſs, &c. is tantamount to feeling a hard or ſoft thing, theſe being the objects of thoſe perceptions, or what is felt, and nothing elſe.

480. The ſenſation of reſiſtance, or what is the ſame thing, a *body*, frequently contains numerous parts; and beſides the reſiſtance that each of them offers, the whole of them reſiſts ſeparation from each other; and from the greater or leſſer difficulty, with which this ſeparation is effected, the body is denominated *hard* or *ſoft*, &c. as already ſaid, N° 477. Hence there are two ſpecies of reſiſtance, or hardneſs; one, that of each individual particle, or *minimum tangibile*, which is *abſolute*, as it cannot be deſtroyed without annihilation of the body; the other, that of the ſeparation of the particles, which is entirely relative. When, as Mr. Locke obſerves, the difficulty

is

is ſuch, that it will put us to pain before we can make the body change its figure, the body is denominated *hard*; but if the change of figure can be effected without pain, the body is denominated *ſoft*. Hence Auguſtus King of Poland, or Mareſhal Saxe, who could with their hands bend a horſe-ſhoe and cruſh a crown piece, would undoubtedly find many bodies ſoft, which we call hard; and a fly which can run upon water muſt find it hard, though to us it appears ſoft: theſe denominations therefore, in this caſe, are merely relative to our different ſenſations, and denote nothing abſolute.

481. That there exiſts an adherence or cohesion of particles to each other, at the period of their ſeparation, is not denied; but it does not exiſt before the difficulty of ſeparation is experienced; for it is felt, and therefore is a ſenſation. Yet an eminent profeſſor aſks,* who would reaſon with a man who ſhould affirm, that diamonds are not hard before they are handled? He is not aware that, by calling a ſtone a diamond, he already ſuppoſes it hard, hardneſs being included in the ſignification of the

* Reid on the Human Mind, chap. 5. ſec. 2. p. 103.

the word diamond, (ſee N° 476.) A ſtone indeed may be preſumed to afford the ſenſation of hardneſs when tried, as this is *ſuggeſted* by other external characters; but no jeweller will aſſure him of its actual exiſtence, until he has experienced it; and then he judges it to have pre-exiſted, becauſe he is certain he would have perceived the ſame difficulty at any former period, if he had ſubjected it to the ſame trial: this he infers from the immutability of the ſtone; ſo that in every caſe a reference is made to the peculiar ſenſation. The profeſſor is therefore miſtaken in ſaying, that hardneſs or ſoftneſs are neither ſenſations, nor like any ſenſation; do not his own expreſſions, *firmneſs* or *eaſe* of change, allude to ſenſations? otherwiſe they would be unintelligible: his diſtinction of hardneſs, which is a ſenſation, and hardneſs, which is not a ſenſation, but a phyſical quality, is totally unfounded: indeed the conſciouſneſs of their identity ſeems to force itſelf upon him, for he allows that it is difficult to disjoin the ſenſation from what he calls the external quality of hardneſs, in whoſe ſhadow, he ſays, it is apt immediately to hide itſelf: this a philoſopher,

he adds, muſt attain by pains and practice. This paragraph ſurely requires no further animadverſion; more eſpecially as he owns, "that no man can ſhew by any good argument, that all our ſenſations might not have been as they are, though no body or quality of body had ever exiſted."*

482. *Solidity*, in natural philoſophy, is juſtly defined, by Mr. Locke, to be the reſiſtance which we find in one body, to the entrance of another body into the ſpace it occupies, until it has left it: it is therefore a ſenſation, and its reſult being negative, is called *impenetrability*: in effect, penetration would imply the annihilation of the body penetrated, an effect which nature does not admit. Yet in ſome experiments, a partial penetration takes place in appearance, as in ſome metallic alloys, mixtures of ſulphuric acid and water, or alcohol and water, from a cloſer approximation of the parts of both, than there previouſly exiſted of the parts of either.

483. *Solidity in geometry* denotes the quantity of ſpace contained in a body, and thence

* P. 105, 107, 115.

called

called its ſolid or cubic contents, or volume. *Maſs* denotes the quantity of particles (*minima tangibilia*) contained in a given volume.

484. *Heat* and *cold* are acknowledged to be ſenſations received by the ſenſe of touch: yea they affect our whole frame more univerſally than any other ſenſations do; hence we ſay we are hot or cold, but we cannot ſay when we ſee a colour, that we are coloured; or when we perceive a ſweet or bitter taſte, that we are ſweet or bitter; or when we feel extenſion, that we are extended, &c. Theſe denominations are even beſtowed on other tangible ſenſations (commonly called bodies) which are not properly their ſubject: thus a lighted coal is called *hot*, and ice is called *cold*, becauſe on their approach, or contact with the organs of touch, thoſe ſenſations are impreſſed upon us. In the ſame manner as certain tangible ſenſations are called coloured, when in their preſence either actually felt or conceived, colours are perceived.

485. An eminent profeſſor thinks, it were abſurd to ſuppoſe that a thermometer could not riſe or fall, unleſs ſome perſon were preſent; I ſhould think it abſurd to ſuppoſe that a ther-

mometer could even exist without being perceived by some mind, either human, angelic, or divine; it being nothing more than an aggregate of sensations, or perceptions, according to the difference of the minds that perceive it.

486. It appears to me, that the cause of the sensation of heat, and of the other effects attributable to it, is not itself a sensation of any kind, but a peculiar exertion of the divine agency, regulated by various laws, in various circumstances, though invariable in each. Its most general effect is an internal motion of the parts on which it operates, as cold is produced on the diminution of that motion. This exertion is now generally called *caloric*, which is only an expression of the nature of an algebraic sign, by which the cause is more commodiously expressed.

487. *Extension* consists in the continuation of the sensation of resistance in its various degrees, whether of hardness, liquidity, or fluidity; if, therefore, there be but one resisting particle, there can be no extension. In this definition I have the pleasure of agreeing with Mr. Locke: he tells us, that the extension of body

body is nothing but the coheſion, or *conti-nuity*, of ſolid, ſeparable, moveable parts.*

488. A few may object, that ſome bodies are extended that yet offer no reſiſtance, as calm air; but the very act of inſpiration may undeceive them.

489. *Figure*, Mr. Locke juſtly defines to be the relation which the parts of the termination of an extended body have among themſelves, and conſequently of the termination of diſtinct though continued ſenſations.

490. *Place* is the ſituation of a body relatively to others apparently at reſt, or moved with equal velocity in the ſame direction; thus a body may be ſaid to be in the ſame, or in a different place, relatively to the bodies with which its ſituation is compared.

491. *Motion* is a change of place; or may more accurately be defined the ſucceſſive perſevering exiſtence of a body, or of ſome of its parts, in different places. I ſay *perſevering*, becauſe if a body were annihilated in one place, and again created in another, it could not be ſaid to have been moved.

* Book ii. chap. iv. ſec. 5.

492. The diſtance traverſed by a moving body, compared with the time employed in the traverſe, conſtitutes what is called its velocity, and is evidently ſo much the greater, as the diſtance traverſed is wider, and the interval of time ſmaller.

493. The quantity of moving particles, that is, ſolid and extended particles, contained in a moving body, commonly called its maſs, multiplied into its velocity, conſtitutes the quantity of its motion.

494. *Diſtance* denotes the greater or leſſer number of ſenſations of reſiſtance, that are either perceived or conceived, between the two extremes ſaid to be diſtant from each other. Space denotes alſo the ſame diſtance or interval, but relatively to the poſſible exiſtence of intervening bodies.

495. *Motion* is ſaid to be either relative or abſolute, though in fact abſolute motion is impoſſible. *Relative*, when the ſituation of a body is changed with reſpect to the bodies immediately contiguous to it, and apparently at reſt, or at leaſt moved with leſs apparent velocity in the ſame direction. *Abſolute*, when its ſituation is changed with reſpect to more diſtant bodies apparently quieſcent: hence a relation

relation to other bodies is eſſentially included in the conception of motion; and if there were only one body in exiſtence, it could not be moved. This I have elſewhere ſhewn.

496. *Reſt* is a mere negation of motion, for it is unſuſceptible of degrees; whereas motion is ſuſceptible of various degrees of velocity, and of various directions, and implies a poſitive action, namely, that of the Supreme Being, by whom alone, or through whoſe indulgence, by the human mind, motion can be effected, according to certain laws by him conſtituted.

497. Dr. Watſon, in his admirable treatiſe on time, ſhews, that a body in apparently inceſſant motion occupies more ſpace than when at reſt; and thus, on principles which he alone diſcovered, completely anſwers Zeno's Achilleum, which never before had been ſatiſfactorily refuted, on rational principles.

498. *Force* is a term uſed to denote the extent of the divine agency, known by its effects or concomitant circumſtances, and is not an imcomprehenſible ſhadowy being paſſing from one body into another, as ſome philoſophers have imagined.

499. Yet, as the Divine energy operates, as if something really passed from one body to another, this term is a useful compendious expression, and as such, used in various calculations of motion or resistance, &c. in various occasions.

500. We often *see* bodies strike each other with great force, while we ourselves feel nothing, because the tangible sensations are not then in our minds, but are barely *suggested* by the visible, which are their signs; or by their effects, which indicate what we should feel, if exposed to the force or agency then exerted. See N° 405.

501. It undoubtedly sounds harsh to say, that one sensation impinges on another, or clashes with another; but this is saying no more, than that one object is perceived to strike another object also perceived. Of such opposition and clashing of the internal modifications of the mind, we have several examples; thus judgments clash with each other, when we doubt, and our volitions during the strife of passions, or the contests of judgment and passion. We advance nothing but what we conceive; whereas, the hyloists are obliged to

say,

ſay, when one body ſtrikes another, that *an unintelligible ſomething ſtrikes another unintelligible ſomething*, opening a door to atheiſtical myſtery, and the utter ſubverſion of human reaſon.

502. *Gravity* denotes the tendency which bodies manifeſt, in certain circumſtances, to moving to the earth, or to the earth's centre. If we ſupport a heavy body, we feel a degree of pain or laſſitude: this tendency then exiſts, ſince it produces that effect: we alſo perceive this motion accelerated, if the heavy body be unſupported; therefore, in all ſuch caſes, the Divine agency is exerted. But where it produces no effect whatſoever, as where a heavy body reſts on another that is quieſcent; for inſtance, a ton of lead on a ſolid rock; its tendency downwards cannot be ſuppoſed to exiſt; for to ſuppoſe a cauſe in action, and yet producing no effect, is an evident contradiction. Beſides, the force of gravity cannot be diſtinguiſhed from its *momentum*: now the *momentum* is the product of the maſs multiplied into the celerity: where, therefore, there is no celerity, there can be no *momentum*, and conſequently no force of gravitation.

503. *Univerſal attraction* denotes the tendency which the planets have, through the Divine agency, to approach to the ſun and to each other, as *chynical* or *elective attraction* does that which bodies of different ſpecies have to others, in certain circumſtances.

504. Tactile ſenſations are variouſly mixed and diverſified: their different collections are marked by different names: thus one is called *fleſh*, another *wood*, another *earth*, another *ſtone*, another *metal*, another *wool*, another *ſilk*, &c. &c.; and the ſame may be ſaid of colours, taſtes, and ſmells.

SECT. VI.

OF THE HUMAN BODY AND OBSCURE SENSATIONS.

505. There is a ſet of cloſely-connected tangible ſenſations, with ſome or other of which the human mind is conſtantly impreſſed, from the earlieſt origin of life until its final extinction, whoſe aggregate conſtitutes the human body.

506. From the peculiar diſpoſition of theſe ſenſations, ariſes an organization, whoſe peculiarity

liarity and integrity is a neceſſary condition to the different ſenſations allotted to different parts of the aggregate, ſuch as that of the eyes, ears, &c. the ſenſation of tact alone being diſtributed through the whole aggregate.

507. In addition to the peculiarities of organization, this aggregate differs from all other ſenſations in many particulars.

508. Firſt, parts of it, ſuch as the tongue, hands, legs, and feet, are ſubjected to the control of the will, and other parts are affected even involuntarily by the paſſions and imagination.

509. Secondly, theſe appropriate ſenſations are diſtinguiſhed from adventitious ſenſations by a double reference to the ſenticnt principle: whereas, the adventitious afford only a ſingle reference thereto. Thus, if I touch one hand with the other, I have a perception of their contact, in each; but if I touch a ſtone with my hand, I have a ſenſe of their contact, not in the ſtone, but in my hand.

510. They differ alſo in another circumſtance, the adventitious ſenſations not being the ſeat of either pain or pleaſure, whereas the apropriate are the proper ſeat of both: thus

thus if I am ſcratched by a pin, though the pin is alſo a ſenſation, yet I do not feel nor attribute pain to the pin, but to the hand, or other part ſcratched. This circumſtance has much embarraſſed both the hyloiſts and materialiſts; both, in contradiction to the evidence of their ſenſes, being obliged to aſſert, that the brain alone is the ſeat of ſenſation, to avoid the conſequence that otherwiſe would inevitably follow from their reſpective ſentiments, that the ſoul or ſentient principle is extended, ſince one may at the ſame time feel in the head and in the toe.

511. Thirdly, theſe appropriate ſenſations are diſtinguiſhed by their *ſituation* with reſpect to each other, ſome being relatively *external*, viſible, and tangible by the hand, or other external parts; others *internal*, as the ſtomach, heart, brain, liver, ſpleen, bowels, and other *viſcera*. The exiſtence of the latter, is not clearly and diſtinctly noticed by the mind to which they are appropriated, for four reaſons; firſt, becauſe their exiſtence is atteſted, neither by the ſight, nor diſtinctly by a double reference by tact, as the external parts are; and, ſecondly, becauſe the ſenſation of each is confounded

and

and blended with thoſe of all the other *viſcera*; which mixed ſenſation, when all are in a ſound ſtate, is called the *ſenſation of health*, the pleaſure of which is clearly perceived during recovery from a ſevere diſorder. Of ſuch mixed ſenſations the arts of perfumery, cookery, painting, dying, and optics, preſent many inſtances. Thirdly, the ſhape, extent, and motion of each, may have originally been perceived diſtinctly, though now obſcurely, from familiarity and attention to livelier ſenſations, their conſciouſneſs is ſo far diminiſhed, that it cannot be diſtinctly recollected; for recollection requires diſtinct attention, and attention requires dwelling on the perception for ſome perceptible portion of time; thus what we ſee or hear rapidly cannot be diſtinctly recollected: it is thus that, though the mind does not ceaſe to think during profound ſleep, yet its ideas are ſo feeble, and its conſciouſneſs ſo ſlight, that no trace of them remains on the memory. See 1 Baxter, 331.*

* Several curious inſtances of ſuch evaneſcent conſciouſneſs are produced by profeſſor Dugald Stewart, in his chapter on *Attention*.

Fourthly,

Fourthly, the automatic motions of the internal parts are carried on by Divine agency; their exiſtence is therefore known to the Divine mind, and ſome of them may be obſcurely known to us; for inſtance, the motion of the blood, which is ſuggeſted by that of the heart and pulſatio n The whole organization of the human body, its nerves, muſcles, tendons, fibres, brain, &c. conſiſt of ſenſations, which now indeed, from long habit, are ſo obſcurely perceived, and ſo tranſiently attended to, as not to be diſtinctly noticed, any more than the train of volitions neceſſary to the rapid execution of a piece of muſic, which are nevertheleſs perfectly unnoticed by the performer himſelf, who while playing often holds a converſation on other ſubjects. See poſt. N° 887 and 888. But at our birth, moſt probably, they are all diſtinctly perceived, and from their now interference with each other, moſt probably, the firſt pains and cries of infants proceed. But by cuſtom, the pain gradually leſſens, and at length ceaſes; and thus the perception ceaſes to be diſtinctly attended to; yet their intermediation is ſtill a neceſſary ſtep to

the diſtinct perceptions preſented to us by our ſenſes, to our ideas, and to our thoughts of every kind; for when they ceaſe to exiſt, or are deranged, either by the manifeſt or hidden laws of our conſtitution, all ſenſual perceptions, and even life itſelf, is extinguiſhed.

512. Many other changes alſo take place in the internal, and even in the external parts of our frame, which by being gradual, eſcape notice; ſuch as our growth and decay, and the rudiments of various diſorders; in conſequence of laws which take place in various circumſtances; on the occurrence of certain emotions, ideas, or ſenſations, whether in the internal or external parts, in conſequence of theſe, the organization may be injured or deſtroyed, as the organs of ſight by exceſſive light, and the whole frame by certain cadaverous ſmells, &c.: but the moſt uſual ſource of injury, and even of the deſtruction of life, from adventitious and extraneous ſenſations, ariſes from the violence of the ſenſations of heat, cold, percuſſion, and obſtruction to neceſſary animal functions.

513. Some may perhaps object, that difference of ſituation is incompatible with an exiſtence

existence purely mental; thus judgments, volitions, or passions, have no situation: to undeceive them it were perhaps sufficient that they should reflect on the difference of situation which their dreams often present to them, or a common mirror, or their ideas of common sensible objects; for instance of a house, wherein they may contemplate the different situation of the walls, windows, floors, stairs, rooms, roof, &c; and yet all these exist confessedly only in the mind, which thus ideally represents them in their absence.

CHAPTER II.

OF THE CAUSE OF OUR SENSATIONS

514. No solid or even plausible reason can be assigned for deeming our sensations to originate from any other cause than the known cause of our existence, the Supreme Being, and the impressions we receive from each other, or other animals, whose efficacy is evidently derived from him: as we have no power over our own, still less can we be supposed to have any over beings, with which we are not

identified,

identified, but by conceſſion from the common Author of our exiſtence; a power limited, not by our will, or at our diſcretion, but regulated and confined by laws of his appointment.

515. The ſuppoſition, that any other claſs of beings, whether known or unknown, poſſeſs a power of acting on our minds, is not only gratuitouſly aſſumed, where not atteſted by Divine revelation, rationally interpreted, but has ſerved as a foundation for the ſuperſtructure of the groſſeſt and moſt pernicious errors, which unhappily have, for forty centuries at leaſt, overſpread the greater part of the globe, and ſtill ſpread their malignant influence over no inconſiderable portion of it, as polytheiſm, idolatry, magic, demoniſm, and the various cruel and abominable practices that ſprung from them.

SECT. I.

OF MATTER.

516. We are now to treat of the moſt important object of contention that divides modern metaphyſicians: the exiſtence of a ſubſtance

ſtance called *matter*; which, ſtrange to tell! is deemed impoſſible by one party, on arguments acknowledged, even by the adverſe party, to be unanſwerable;* though it aſſerts at the ſame time, that the denial of its exiſtence is abſurd and fanatical.† And while ſome of its ableſt patrons own the ſuppoſition of its exiſtence to be barely ſuperfluous and unneceſſary;‡ moreover its admiſſion is well known to have been the ſource of the wildeſt ſyſtems of ſcepticiſm, atheiſm, Epicureaniſm, Spinoſaiſm, &c.; and of the moſt abſurd philoſophical hypotheſis, namely, its co-eternity with the Divinity, its infinite diviſibility, its homogeneity and innate activity, &c.; yet, after having thus perplexed themſelves, and cauſed inextricable confuſion, its defenders gravely tell us, the ſubject is placed beyond the limits of the human underſtanding, (as if they were acquainted with them, and had fixed and defined them,) which is an expreſs avowal, that they know nothing of matter.

517. But, to be more particular, I ſhall, in

* Reid on the Mind, p. 21.

† Stewart on the Mind, p. 6.

‡ Reid on the Mind, 107. Encyclop. Britt. *Metaph.* 544

the

the *firſt place*, ſtate the definition of matter, given by its principal advocates, and examine its truth and conſiſtency.

Secondly, the conceſſions they have been forced to make.

Thirdly, the origin of the prevailing belief of the exiſtence of matter.

Fourthly, the advantages gained by the ſpeculative rejection of matter.

Laſtly, I ſhall anſwer the objections made, or that may be made, to the anti-hyloiſtic ſyſtem.

SECT. II.

DEFINITION OF MATTER.

518. I omit the definitions given by the peripatetics, Carteſians, and Leibnitzians, as they are now generally abandoned.

519. Mr. Locke, in his reply to the biſhop of Worceſter,* defines matter to be a ſolid and extended ſubſtance. This definition involves an impoſſibility; for extenſion, ac-

* See the note to ſec. 56, Book 4. chap. 3, 16th edition, vol. ii. p. 144,

cording to the hyloifts, confifts of parts placed one beyond the other; now I afk, whether thefe parts are themfelves extended or not? If not, then according to this definition they are not material; if they are extended, then the fame queftion recurs without end, and thus nothing is explained; it is juft as if the Indian mentioned by Mr. Locke to have faid, that the world was fupported by an elephant, and the elephant by a tortoife, fhould have added, that this tortoife was fupported by another tortoife, and fo on; or, as if an anatomift fhould fay, that a fibre confifts of fibres one outfide the other. Accordingly, this definition is exploded by Mr. Locke himfelf;* and yet he gives no better; nay he affirms, that "this primary "and fuppofed obvious quality of bodies will "be found, when examined, as incomprehen-"fible as any thing belonging to our minds, "and a folid extended fubftance as hard to "be conceived, as a thinking immaterial one." To fuch extremities the moft ingenious men reduce themfelves, when they outftrip the evidence of their fenfes! and undervalue that of confcioufnefs. The difference however

* Lib. 2. chap. xiii. fec. xv. p. 133.

betwixt

betwixt our knowledge of this fictitious extension, and the knowledge of our thoughts, is very different; the latter is founded on the evidence of consciousness, the former on delusions of imagination and reasoning acknowledged to be absurd.

520. Secondly, in this hypothesis, either there exist certain parts which are the primary elements of extension, or there are no such parts: if we suppose such parts, their magnitude must be determinate or indeterminate; if determinate, then they are material, though single, and consequently extension does not require parts beyond parts, or else they are further divisible, and consequently not primary. Indeterminate their magnitude cannot be; for, whatever exists is determinate. If there are no such elementary parts, then matter must be infinitely divisible, and if so, it consists of parts infinitely small; for division does not create the parts, they must exist before they can be divided; but these infinitely small parts are still material, and yet not extended, being already as much divided as they can be; therefore extension is not essential to matter.

521. Thirdly, Doctor Priestley, the parent

of moſt of our modern philoſphic diſcoveries, though his notion of matter be as abſurd and incomprehenſible as any other, (for who that admits it can advance any thing rational concerning it?) produces a very concluſive argument againſt attributing ſolidity, or impenetrability to it, as properties eſſential to its exiſtence; it runs thus, the power of attraction is neceſſary to ſolidity: for every body, as ſolid and impenetrable, muſt have ſome particular *form* or *ſhape*; but it is no leſs obvious, that no ſuch *figured thing* can exiſt, unleſs the parts of which it conſiſts have a mutual attraction, ſo as to keep cloſe and united to each other: the power of attraction muſt therefore be eſſential to the exiſtence of all matter, if ſolidity be eſſential to it, ſince no ſubſtance can retain any form without it, nor its parts adhere to each other. Now it is generally held, that matter is inert, and deſtitute of all power, unleſs the *vis inertiæ*, if ſuch there be, be deemed a power;* and Sir Iſaac Newton expreſsly denies gravity to be a power inherent and eſſential to matter, and conſequently attraction of coheſion; which is the ſame power acting at a ſmaller

* Which is denied by Dr. Franklin and others. See Segui Phy. 91.

or no diſtance.* (See Newton's letter to Bentley, January 17th, 1692-3.)

522. Hence Mr. Locke, though he defines matter to be a ſolid and extended ſubſtance, yet he aſſerts,† that, if God has not conjoined its parts by connection inconceivable to us, we muſt deny the conſiſtency and even the being of matter; ſince every particle of it having ſome bulk, has its parts connected by ways inconceivable to us.

523. We hereby ſee the neceſſity of admitting the only definition of extenſion, of which our ſenſes afford us any knowledge, namely, that it is nothing more than a continuation of tactile perceptions, more or leſs coherent, as already ſaid, N° 487; and this coherency is nothing but the Divine agency diverſified in different bodies and in different circumſtances. This agency we may call *attraction*, of which no better account can be given.

524. Doctor Reid alſo agrees with Locke, in ſtating that matter is ſomething extended and ſolid, which may be meaſured and

* See Hutt. Mathem. Dict. *Attraction*, p. 171.

† Vol. ii. p. 148.

weighed, and is the immediate object of the touch and ſight.* But,

525. If matter had been the immediate object of either ſight or touch, it ſurely might have been better deſcribed than by calling it *ſomething*; and particularly if it were the *immediate* object of both thoſe ſenſes. The *immediate* objects of our ſenſes are thoſe things which we immediately know by their means, and this knowledge is univerſally called a ſenſation: the immediate objects of ſight are light and colours; thoſe of touch, are hardneſs, ſoftneſs, heat, cold, &c. Theſe ſenſations, the Doctor owns, † have not the leaſt ſimilitude to external qualities; theſe cannot therefore be ſaid to be immediately perceived by our ſenſes: hence he further owns, that our ſenſes barely *ſuggeſt* them and their belief, as if it were by a kind of natural magic.‡ Nay, he ſays, that their exiſtence cannot be collected from our ſenſations, even by reaſoning;§ how then can they be ſaid to be immediately perceived by them? He probably meant no more

* 1 Intellect. Powers, p. 265.

† On the Mind, p. 107. 108. & paſſim.

‡ Ibid. p. 113. § Ibid. 115.

than

than that they are immediately ſuggeſted by them, and, as he thinks, by the conſtitution of our nature: yet, the conſtitution of our nature cannot be ſuch as to ſuggeſt a falſehood, an abſurdity, and much leſs an impoſſibility; though our ignorance, precipitate reaſoning, prejudices, and language founded on prejudices, may.

526. *Menſurability* too evidently depends on extenſion, not to ſhare its fate; and of this enough has been ſaid, N° 519.

527. *Ponderability*, in the ſame manner, depends on the greater or leſſer number of tangible ſenſations compriſed in a given ſpace, being nothing more than their tendency to the earth, N° 502. This is immediately perceived by the touch, and only ſuggeſted by the ſight, from a long and early aſſociation grounded on experience, N° 502.

528. In the hyloiſtic hypotheſis, man conſiſts of an immaterial or ſpiritual ſoul, contained in a material organiſed body, and each of theſe is ſaid to exerciſe an influence on the other. Now a ſpiritual being occupies no ſpace, and therefore cannot be ſaid to be any where in the hyloiſtic ſenſe; and as to the influence which theſe two ſubſtances are ſaid to

exercise on each other, it is perfectly inconceivable, as one is supposed to be extended and the other not; it is therefore said to be grounded on the established laws of their union; and yet these laws are acknowledged to be unnecessary, since it is said, that "no man "can shew, by any good argument, that all "our sensations may not have been as they are, "though no body, or quality of body, had ever "existed."* The admission of matter is therefore contrary to the first of Sir Isaac Newton's rules of philosophizing, that *we should admit no more causes of things than are sufficient to explain appearances.*

529. Extension and solidity being then perceived immediately by sense, and consequently mere sensations, cannot exist in an insentient subject, such as matter is said to be; and consequently matter, which is said to be both extended and solid, is something as impossible and repugnant as a square circle, or any other chimera. And hence Dr. Price, though a zealous maintainer of hyloism, was at last induced to own, in his controversy with Dr. Priestley, † that it would not perhaps be impossible to convince him, that there was no

* Reid on the Mind, 107. † P. 85.

such

ſuch thing as matter. Thoſe eminent prelates, Sherlocke and Smalridge, embraced the antihyloiſtic ſyſtem, as the late Mr. Day, and many more of my acquaintance have done;* and Dr. Prieſtley tells us he knew ſome more.† And ſee poſt. N° 612. Chambers ſays, article Exiſtence, that many in his time, that is, ann. 1730, or 1740, thought the Berkeleyan ſyſtem demonſtrated.

SECT. III.

CONCESSIONS OF THE ADVERSARIES OF ANTIHYLOISM.

530. Firſt, Mr. Locke divides all our ſenſations into primary and ſecondary: the primary he thinks reſemblances of external objects.‡ Such are extenſion, ſolidity, figure, and motion. The ſecondary are colours, ſounds, odours, and taſtes; and theſe he acknowledges have no reſemblance to any thing external, but are mere powers in thoſe bodies we denominate from them *red*, *ſweet*, &c. to produce thoſe ſenſations, by the operation of inſenſible particles, whoſe bulk, figure, or

* Encylop. Britt. Metaph. p. 543.

† Examination of Drs. Reid, Beattie, and Oſwald, p. 151.

‡ Book 2. chap. 8. ſec. 15.

motion,

motion, we cannot diſcover by any of our ſenſes:* theſe powers are, therefore, perfectly unknown to us, at leaſt through our ſenſes. And, on the other hand, Dr. Reid juſtly remarked,† that "Mr. Locke had not "given due attention to the nature of ſen-"ſation in general, when he affirmed, that the "ideas of primary qualities, that is, the ſen-"ſations excited by them, are reſemblances of "thoſe qualities; for that nothing like a ſenſa-"tion can be in an inſenſient being is ſelf-evi-"dent, (juſt as Berkeley affirms.)

531. Secondly, Dr. Reid acknowledges, that by ideas of ſenſe, Berkeley means ſenſations, as we have them by means of our ſenſes;‡ and that this author having laid down, that it muſt be evident to any one that takes a ſurvey of the objects of human knowledge, that they are either ideas actually impreſſed on the ſenſes, or elſe ſuch as are perceived by attending to the paſſions and operations of the mind; or, laſtly, ideas formed by the help of memory and imagination, either compounding, dividing, or barely repreſenting, thoſe

* Sec. 13, 17, 18.

† 1 Reid, p. 365. ‡ 1 Reid, Intell. Powers, 267.

originally

originally perceived by the aforesaid ways.* Dr. Reid owns he once believed this doctrine so firmly as to embrace the whole of Berkeley's system in consequence of it, and that supposing this principle to be true, this system is impregnable.† That nothing can resemble a sensation but a "similar sensation in the "same or some other mind; that to think any "quality, in a thing that is inanimate, can "resemble a sensation, is a great absurdity: "in all these points, the Dr. says, he perfectly "agrees with Berkeley.‡ Again, that the "evidence of an all-governing mind, so far "from being weakened, seems to appear in a "more striking light, upon his hypothesis, "than on the common one; the powers "which inanimate matter is supposed to pos-"sess, having always been the strong hold of "atheists, this fortress is most effectually "overturned, if there be no such thing as "matter in the universe."§.

532. "If it be true, that by our senses we "have the knowledge of our sensations *only*, "then Berkeley's system must be admitted.

* Principles of Human Knowledge, sec. 1.
† 1 Reid, 243, 244. ‡ 1 Reid, 268.
§ Reid, 252.

"But

" But if there are objects of the senses which " are not sensations, his arguments do not " affect them: they may be things which do " not exist in the mind, as all sensations do; " they may be things of which by our senses " we have notions, though no ideas, just as by " consciousness and reflexion, we have notions " of spirits and their operations, without ideas " or sensations."* (No, we can have no *notion* of matter by the senses; if we could, we might explain what we mean by it, as we can explain what we mean by notions gained by consciousness or reflection; but of matter, as generally understood, we can give no intelligible account, as shewn N° 519—529.)

He also allows, that all our sensations might be as they are, though nobody had ever existed;† and that the existence of bodies cannot be collected by reasoning from our sensations, or from any principle of human nature.‡

* Reid, 269. † Reid on the Mind, 107. ‡ Ibid. 115.

SECT.

SECT. IV.

ORIGIN OF THE BELIEF OF THE EXISTENCE OF MATTER.

533. By *matter* I underſtand an inſenſient being, ſuppoſed to be the cauſe or occaſion of our ſenſations Thus defined, it includes no repugnancy, but its exiſtence is ſuperfluous and at leaſt highly improbable, as will be ſeen, N° 543. It can not be called a ſubſtance or *ſubſtratum*, as it has no known modification whatſoever.

534. *Belief* or diſbelief are judgments, affirmative or negative, founded on ſome ground either real or apparent; when their grounds are ſolid and *real*, though differing from thoſe ſuggeſted by appearances, they are *ſpeculatively* true, though apparently falſe. When the contrary, they are *mere* appearances, whether to the ſenſes or to the imagination, and nothing more.

535. Thus when an oar obliquely placed, partly in water and partly in air, is judged to be ſtraight, this judgment is ſpeculatively and in reality true, though apparently to the ſight it

it is falſe; and, on the contrary, when it is judged to be crooked, this judgment is apparently true, though ſpeculatively and in reality falſe. So alſo, when ſpace is judged to be extended beyond the limits of the univerſe, and even infinitely, as many have judged it to be, this judgment, apparently to the imagination, is true, though in reality falſe. By a ſimilar deluſion Deſcartes and his followers deemed ſolid extenſion boundleſs.

536. Now the belief of the exiſtence of matter originated, and ſtill reſts, on ſimilar deluſions, and principally on the following:

537. Firſt, the perſuaſion that we perceive diſtant tangible objects immediately by ſight; whereas we only inſtantaneouſly imagine and infer their exiſtence, from their long-experienced connexion with viſual objects, and certain motions of our eyes. This is owned by the moſt intelligent hyloiſts,* ſee N° 405, &c. Thus, what we ſee, is barely a ſign of the tangible ſenſation we ſhould have, or ſome other mind has, if in contact with the object. In fact, we never ſee and feel the ſame thing,

* Stewart on the Mind, 148, 149.

though we may things to which a common name is given; thus I may be ſaid to see and feel the ſame billiard ball, though in fact I ſee only its colour, and at moſt half its figure; but I do not ſee its ſmoothneſs or hardneſs, no more than I can feel its colour; the former are ſuggeſted to me by the ſight, in conſequence of the experienced aſſociation of the colour with thoſe tangible ſenſations, which we know we actually have not; now, of ſuch ſenſations, thus ſuggeſted to us, and which we are certain we ſhall experience after traverſing a certain diſtance, we imagine the cauſes to exiſt at that diſtance, and conſequently that they are external to our minds, through our natural ignorance and habitual inattention to the Supreme Being, the only poſſible cauſe of our ſenſations. Theſe ſuppoſititious imaginary cauſes are by the hyloiſts called *matter*.

538. So alſo a blind man, finding that he can ſucceſſively feel the aggregate of the reſiſting ſenſations that compoſe his body, naturally imagines theſe parts to be external to, and diſtant from, his mind or principle of thought, which he cannot feel.

539. The ſame miſtake, though in a

leſſer

leſſer degree, is daily made with reſpect to ſounds; for nothing is commoner than to ſay one hears trumpets, or the firing of guns, or the approach of carriages, though nothing can really be heard but the different modifications of ſound connected and long aſſociated with the above-mentioned circumſtances of thoſe bodies.

540. So alſo, when the known figure, colour, and magnitude, of an apple are ſeen, they immediately ſuggeſt the taſte and ſmell; and on this aggregate of ſenſations, a name is beſtowed, which is that of an *apple*.

541. The ſecond cauſe of this perſuaſion was ſuggeſted by the ſtructure of language: this requires, moſt commonly at leaſt,* adjectives and ſubſtantives. Now the ſame adjective is applicable to a variety of different ſubſtantives; thus we ſay a good man, a good horſe, a good houſe, &c. Frequently indeed the ſubſtantive with which the adjective is ſuppoſed conjoined, is not expreſſed; thus Hudibras ſays, " *better* is the only enemy to

* I ſay commonly, for in Hebrew, abſtract words are ſometimes uſed for adjectives; ſo Paganinus tranſlates the ſecond verſe of Geneſis, *terra erat ſolitudo & inanitas.*

good;"

good;" but, as an adjective is imperfectly intelligible without reference to some substantive, the general term *thing* was invented, which denotes any substantive: then all sensations being expressed by adjectives, on account of their various applicability, as *red, fragrant, sweet, loud, hot, cold, hard, soft, extended*, &c. the mechanism of language necessarily supposes them to have some substantive to which their aggregate is applicable. This substantive was called a *thing*, or substance, though perfectly unknown, being unperceived by any of the senses, until a particular name was devised, which name was supposed to denote also that unknown thing, and to involve it in its signification: thus an apple was at first called a red, fragrant, juicy *thing*, before it was named an *apple*, which more expressly denoted the peculiarities of its taste, smell, colour, shape, hardness, &c. Thus these sensations were deemed to be modifications of this fictitious thing, which was called their *substratum*, and the supposed *substratum* of all sensational aggregates was by philosophers called *matter*.

542. Thirdly, men were led to think, that

there exiſted ſome ſubſtance foreign and extrinſic to them, by reaſon of the continued reappearance of many objects totally independent of them; not reflecting, that all that was perceivable in theſe objects were mere ſenſations, as colour, taſte, ſmell, &c. which could not exiſt but in ſome mind, though not perceived by their own though they reappeared to them by virtue of the laws fixed by the Author of nature. Hence that profound philoſopher Mr. Turgot ſays, that exiſtence, relatively to us, is the permanence of certain collections of ſenſations, which in ſimilar circumſtances conſtantly reappear the ſame, with alterations ſubjected to certain laws."*

543. Thus the exiſtence of matter, though in reality an abſurd fiction, and therefore to be rejected in ſpeculations where the mere truth of things is to be examined; yet, being ſtrongly and habitually ſuggeſted by the imagination and the mechaniſm of language, muſt, in all other caſes wherein we ſpeak of and are guided by mere appearances, be admitted as true; but that we are forced to en-

* Vie de Turgot, p. 17.

tertain

tertain that belief, by the conſtitution of our nature, I cannot admit;* for we cannot be ſo framed as to be forced to believe a falſehood after an unprejudiced and thorough examination of any ſubject.

544. Of ſuch belief, founded on the deluſions of imagination, to which nevertheleſs language frequently conforms, we have many inſtances: thus we ſay the ſun riſes, moves round the earth, and ſets, though it is known that this judgment is *ſpeculatively falſe*; thus the exiſtence of our antipodes was long treated as an abſurd fiction, and is ſtill ſo by the vulgar, becauſe they can be imagined no otherwiſe than with their heads downwards. So even ſuch men as Clarke, Locke, and Newton, thought there exiſted a boundleſs ſpace beyond the limits of the univerſe. So, while preſent at a well-acted tragedy, we for a time imagine the actors to be the perſons they repreſent, though we know them not to be ſo: in the ſame manner, in reading an affecting novel or romance, we are deluded into the

* Nor is is admitted by one of the moſt intelligent of Dr. Reid's followers, Encyclop. Britt. *Metaph.* p. 488. ſecond column.

belief of the reality of the perſonages they preſent, and are affected nearly as if they were real, though we know them to be merely fictitious. With how much more efficacy muſt ſuch deluſions operate, which are co-eval with our birth, grow with our growth, are fortified by the prejudices of all around us, even by the language we ſpeak, and are ſo difficulty detected ?*

SECT. V.

ADVANTAGES GAINED BY THE SPECULATIVE REJECTION OF MATTER.

545. Firſt, by proving matter to be impoſſible, we extirpate the root of atheiſm, Manicheiſm, Sabeiſm, and modern materialiſm, errors which it is impoſſible to combat with equal effect on any other grounds; for of courſe it cannot be eternal, as atheiſts pretend; it cannot be derived from an evil principle, or be the ſource of evil; it can have no properties, either known or unknown, and therefore can never, on any ſuppoſition, either

* See Stewart's Outlines, ſec. 302, 303.

feel

feel or think; nor can the ſun, moon, or ſtars, be objects of worſhip, as they have no exiſtence out of the minds that perceive them.

546. Secondly, we diſencumber philoſophy of various paradoxical aſſertions, whoſe admitted incomprehenſibility, though ſuppoſed to reſt on geometrical demonſtrations, is diſgraceful to human reaſon, and has given riſe to ſcepticiſm, and furniſhed fanatics and myſtery-mongers with a plauſible pretext to inſult and humble it; ſuch as the *infinite diviſibility of* matter: the exiſtence of extra-*mundane ſpace,* to which many have attributed the incommunicable attributes of the Deity, and others have with no leſs abſurdity conſidered as a divine attribute, will be ſeen to have no exiſtence but in the mind, ſpace being nothing more than the diſtance diſcerned betwixt tangible ſenſations; and thus the contradiction ariſing from the ſuppoſition of the divine *immenſity* filling all, even extra-mundane ſpace, and yet to be unextended, is at once removed.

The nature of *forces,* and the *communication of motion,* are no longer unintelligible, if they are nothing more than the reſults of the ſettled

laws of the Divine agency: the presence of *powers* acknowledged to be inadequate to the production of the effects attributed to them, such as that of subtile particles, to produce sensations, will no longer be deemed necessary: the change which, according to St. Paul, is to take place in our bodies at the resurrection, is easily understood, as it denotes no more than an alteration in the laws by which the system of perceptions, which constitute our bodies, is at present governed.

547. Notwithstanding this speculative rejection, this word should be used, not only in popular language, wherein it is often taken figuratively, but also in that of natural philosophy, wherein it is employed as an abridged expression of *tangible sensations*.

SECT. VI.

OBJECTIONS TO THE ANTIHYLOISTIC SYSTEM ANSWERED.

I shall first mention those stated and answered by Berkeley himself; but substituting the word *sensation* for *idea*, which the Doctor had unfortunately employed where he meant sensations,

ſations, as Dr. Reid candidly allows, Vol. I. p. 267.

Firſt Dialogue.

548. Firſt to the charge of ſcepticiſm, with which his theory had been unjuſtly branded,* he anſwers, that he who denies any thing, can no more be ſaid to doubt, than he who affirms it, with the ſame degree of aſſurance.

549.—*Second Objection.* Senſible things being conſidered as ſo many modes or qualities, ſuch as colours, taſtes, ſmells, &c. cannot be conceived without ſome *ſubſtratum* of which they are the modes or qualities. This ſubſtratum is not indeed itſelf perceived by any ſenſe, but we have a relative notion of it.

550.—*Anſwer.* If ſo, then it is ſpread under, or is the ſubſtratum of extenſion, as this, being perceived by ſenſe, is a ſenſible quality. Yet, can any thing be ſpread under and ſupport extenſion, which is not itſelf extended? It muſt therefore have an extenſion different

* I can hardly ſuppoſe profeſſor Stewart to have called Berkeley's concluſions ſceptical, and ranked them with thoſe of Hume, otherwiſe than through inadvertence. See his Life of Dr. Reid, p. xc. That Hume himſelf ſhould call them ſo, is not ſurpriſing.

 from

from that under which it is ſpread, and this muſt be ſupported by another extenſion, and ſo on infinitely. (It was however on this miſtaken opinion that language was founded, ſee N° 541.) To form a relative notion of any thing, its exiſtence muſt firſt be eſtabliſhed; a mere nonentity can relate to nothing. And to ſay we cannot conceive qualities or accidents to exiſt, without conceiving a material ſupport to them, is to ſay we cannot conceive them, without conceiving ſomething which we cannot conceive.

551.—*Objection.* Do we not perceive the moon and ſtars at a great diſtance? Therefore they do not exiſt barely in the mind that perceives them.

552.—*Anſwer.* Do you not in a dream perceive many objects having the ſame appearance of diſtance? and yet no one concludes the apparitions of a dream to be without the mind.

553.—*Objection.* Does not ſight ſuggeſt ſomewhat of *outneſs*, or diſtance?

554.—*Anſwer.* In approaching a diſtant object, the viſible ſize and figure change perpetually; the ſight therefore does not of itſelf im-

mediately

mediately inform you that the viſible object you immediately perceive exiſts at a diſtance, there being a continued ſeries of viſible objects during your approach; but from experience you collect what other ſenſations you will, according to the laws of nature, be affected with, after a certain ſucceſſion of time and motion.

555.—*Objection.* But may not ſome things be perceived by ſenſe, which are not immediately perceived?

556.—*Anſwer.* No, not properly ſpeaking; when I look at a picture, for inſtance, of Julius Cæſar, I may be ſaid in a manner to perceive him, (though not immediately) by the ſenſe of ſeeing, but immediately I ſee no more than ſome colours, with a certain ſymmetry and arrangement of the whole: a perſon who had never heard of Julius Cæſar, would ſee as much and nothing more; but my thoughts, from memory of a deſcription of him, are directed to that emperor. We may be ſaid to perceive ſenſible objects in one ſenſe of the word, when, from a frequently obſerved connexion, the immediate objects of one ſenſe ſuggeſt to the mind others, perhaps, belonging to another ſenſe; for inſtance, when

I hear

I hear a coach drive along the ſtreets, the ſound alone is immediately perceived, but by the experience I have had, that ſuch a ſound is connected with a coach, I am ſaid to hear the coach. So, if I ſee a red-hot iron, the ſolidity and heat are not the immediate objects of ſight, but are ſuggeſted to the imagination by the colour and figure which are properly perceived by that ſenſe. But the thing called *matter* having never been known experimentally, can never be ſuggeſted, either by memory, or reaſon, or reflexion; it cannot be the archetype of any ſenſation, for nothing can reſemble a ſenſation, but another ſenſation or idea.

557.—*Objection.* May not matter be the *cauſe* of ſenſations, concurring in their production by its motion; or at leaſt their occaſion?

558.—*Anſwer.* No, for *matter*, in the common ſignification of the word, denotes an inert, unthinking, ſolid, moveable, extended ſubſtance; now how can an inactive ſubſtance be a cauſe? how can an unthinking ſubſtance be a cauſe of thought? It has already been proved, that a ſolid extended ſubſtance was impoſſible.

impoſſible. Motion is a ſenſible thing, and therefore paſſive; when I ſtir my finger, the finger is paſſive, but the will that produced that motion is active. The exiſtence of a thing, whoſe connexion with another thing is not neceſſary, muſt firſt be proved before its cauſation can be affirmed. And certainly the hyloiſts can never produce any proof of the exiſtence of matter independent of its connexion with ſenſations; which connexion they allow to be arbitrary.* Ante, N° 532.

559. Nor can it be the unknown *occaſion* of our ſenſations; for, even granting its exiſtence to be poſſible, yet to enable it to be an occaſion, it ſhould be preſent to the mind, which is not even pretended: the regular production of our ſenſations, that is, the order and regularity obſerved in the courſe of nature, is ſufficiently accounted for, by the wiſdom and power of God, to which at laſt we muſt have recourſe; ſuch occaſions reſulting from an unintelligible ſubſtance, are therefore uſeleſs, and their ſuppoſition unphiloſophical.

560.—*Objection.* Not being able to conceive a thing, is no argument againſt its exiſtence;

* Reid on the Mind, 107, 115. Stewart on the Mind, 92.

ence; therefore, though we cannot conceive what matter is, we are not juſtified in denying its exiſtence.

561.—*Anſwer.* That from a cauſe, operation, ſign, effect, or other circumſtance, there may reaſonably be inferred the exiſtence of a thing not immediately perceived, and that it were abſurd to argue againſt the exiſtence of that thing, from having no direct or poſitive notion of it, I freely own; but, where there is nothing of all this, where neither reaſon nor revelation induce us to believe the exiſtence of a thing, nor the moſt inadequate or faint idea pretended to, the inference muſt be that nothing at all is meant.

562.—*Objection.* Still it would ſeem the *reality of things* cannot be maintained, without ſuppoſing the exiſtence of matter.

563.—*Anſwer.* Let us fix on ſome particular thing, my *glove* for inſtance; is it not ſufficient evidence to me of its exiſtence, that I ſee it, and feel it, and wear it? Can I be more aſſured of its reality, by ſuppoſing that ſome unknown thing, which I neither did nor can ſee, exiſts in an unknown manner, in an unknown place, or in no place at all? How

can

can the ſuppoſed reality of that which is intangible, be a proof that any thing tangible exiſts? or of that which is inviſible, that any thing viſible, or in general of any thing that is imperceptible, that a perceptible thing exiſts? Matter has been proved to be impoſſible in every known ſenſe of the word; and to prove the impoſſibility of any thing, nothing more can be required: it cannot be expected that a repugnancy ſhould be ſhewn betwixt ideas or notions, where there are no ideas or notions at all.

Third Dialogue.

564. — *Objection.* From all that has been ſaid, it muſt be concluded that we know nothing at all; our faculties are too narrow and too few. You may know indeed that fire appears hot, and water fluid, but this is no more than knowing what ſenſations are produced in your mind, upon the application of fire or water to your organs of ſenſe; but their internal conſtitution and true nature is unknown: in pretending that you know the true nature of things, by the appearances in your own mind, you act as wiſely as he, that ſhould conclude that two men were of different

ferent ſpecies, becauſe their clothes were not of the ſame colour.

565.—*Anſwer.* All this ſtrange ſcepticiſm proceeds from ſuppoſing that the real nature, or eſſence of ſenſible things, ſhould be diſtinguiſhed from their orderly and regular appearance in different circumſtances ;* to be plain, real things are thoſe which we ſee and feel, &c. and nothing elſe : a piece of ſenſible bread which I ſee, feel, and taſte, will ſtay my ſtomach, better than ten thouſand times as much unintelligible bread, which I can neither feel or taſte. I cannot help thinking that colours and ſenſible qualities are on the objects ; that ſnow is white, and fire hot, &c. and not certain unperceived ſubſtances : that a thing ſhould be really unperceived by my ſenſes, and at the ſame time not really exiſt, is to me a plain contradiction, ſince I cannot abſtract, even in thought, the exiſtence of a ſenſible thing from its being perceived : wood, fleſh, iron, &c. I ſhould not have known, but that I have perceived them by my ſenſes; and things

* I have added in *different circumſtances*, for bread analyſed affords different appearances, &c. but theſe alſo are orderly and regular.

perceived

perceived by the ſenſes are immediately perceived, and things immediately perceived are ſenſations, and theſe cannot exiſt without the mind; and when actually perceived, there can be no doubt of their exiſtence; I may as well doubt of my own being as of their exiſtence.

566.—*Objection.* But ſuppoſing you were annihilated, is it not poſſible, that things perceivable by ſenſe, may ſtill exiſt?

567.—*Anſwer.* It is, but it muſt be in another mind.

568.—*Objection.* Since you conceive the exiſtence of God, without having any idea of it, may you not conceive the exiſtence of matter, without having any idea of it?

569.—*Anſwer.* The notion of God is obtained by reflecting on my own ſoul, heightning its powers, and removing its imperfections: I know him by reflection and reaſoning of my own mind, and of my own ſenſations and ideas, I have an immediate and direct knowledge; and by the help of theſe I apprehend the poſſibility and actual exiſtence of other ſpirits; and from the dependance I find in myſelf, of my own being and ſenſaſations, I infer the exiſtence of God and his knowledge

knowledge of all things; but as to matter, I neither can perceive it directly, as it involves a contradiction, nor apprehend it by ſimilitude to ſomething elſe, nor yet collect it by reaſoning; I do not deny its exiſtence becauſe I have no notion of it, for many things exiſt of which I have no notion, but then theſe things muſt be poſſible, that is, nothing inconſiſtent muſt be included in their definition; and though we believe things to exiſt, which we do not perceive, yet we may not believe that any particular thing exiſts, without ſome reaſon for ſuch belief; I know what I mean, when I affirm there is a ſpiritual ſubſtance, or ſupport of ſenſation or ideas, that is, a ſpirit that knows and perceives them; but I do not know what is meant, when it is ſaid, that an unperceiving ſubſtance hath inherent in it either ideas or the archetypes of ideas. It is granted, we have neither an immediate evidence nor a demonſtrative knowledge of the exiſtence of other finite ſpirits; but it will not thence follow, that ſuch ſpirits are on a foot with material ſubſtances: if to ſuppoſe the one be inconſiſtent, and it be not inconſiſtent to ſuppoſe the other; if the one can be inferred by no argument, and there is a probability for the other;

if

if we ſee ſigns and effects indicating diſtinct finite agents like ourſelves, and ſee no ſign or ſymptom whatever that leads to a rational belief of matter; I ſay, laſtly, that I have a notion of ſpirit, though I have not, ſtrictly ſpeaking, an idea of it: I do not perceive it as an idea, or by means of an idea, but know it by reflection.

569[b].—*Objection.* Notwithſtanding all you have ſaid, to me it ſeems, that according to your own way of thinking, and in conſequence of your own principles, it ſhould follow, that you are only a ſyſtem of floating ideas, without any ſubſtance to ſupport them. Words are not to be uſed without a meaning; and as there is no more meaning in ſpiritual ſubſtance, than in a material ſubſtance, the one is to be exploded as well as any other.

569[c].—*Anſwer.* How often muſt I repeat, that I know or am conſcious of my own being; and that I myſelf am not my ideas, but ſomewhat elſe; a thinking active principle, that perceives, knows, wills, and operates about ideas. I know that I, one and the ſame ſelf, perceive both colours and ſounds: that a colour cannot perceive a ſound, nor a ſound a

 colour:

colour: that I am therefore one individual principle, diſtinct from colour and ſound; and, for the ſame reaſon, from all other ſenſible things and inert ideas. But I am not in like manner conſcious either of the exiſtence or eſſence of matter; on the contrary, I know that nothing inconſiſtent can exiſt, and that the exiſtence of matter implies an inconſiſtency. Further, I know what I mean, when I affirm, that there is a ſpiritual ſubſtance or ſupport of ideas, that is, that a ſpirit knows and perceives ideas; but I do not know what is meant, when it is ſaid, that an unperceiving ſubſtance hath inherent in it, and ſupports, either ideas or the archetypes of ideas. There is therefore, upon the whole, no parity of caſe between ſpirit and matter.

570.—*Objection.* Aſk the firſt man you meet, and he will tell you to be perceived is one thing, and to exiſt another thing, and laugh at you if you tell him, a tree, for inſtance, exiſts only in his mind.

571.—*Anſwer.* I am ſatisfied; aſk your gardener why he thinks yonder cherry-tree exiſts in the garden? He ſhall tell you, becauſe he ſees and feels it. Aſk him why he

thinks

thinks an orange tree not be in the garden, he will tell you, because he does not perceive it. He certainly believes it to exiſt, even when unperceived, but the reaſon is, becauſe he thinks its colour, hardneſs, and other ſenſible qualities, exiſt though unperceived, juſt as he believes the ſun to riſe and ſet, and would laugh at you, if you told him the earth turned round the ſun: in theſe caſes he ſpeaks from ignorance and prejudice, as every one muſt allow.

572.—*Objection.* But may we not ſay, the exiſtence of a ſenſible thing conſiſts in being perceivable but not in being actually perceived?

573.—*Anſwer.* What is perceivable but a ſenſation or an idea? And can either exiſt without being actually perceived by ſome mind?

574.—*Objection.* According to your notion, what difference is there betwixt real things and the chimeras formed by the imagination, or the viſions of a dream?

575.—*Anſwer.* Ideas formed by the imagintion are faint, indiſtinct, and dependant on the will; whereas the perceptions of ſenſe

are vivid and clear, and have not a like dependance on the will, and are perfectly coherent and regular: the visions of a dream are dim, irregular, confused, and unconnected with the preceding and subsequent transactions of our lives. In short, by whatever method you distinguish, on your scheme, realities from chimeras, the same will hold upon mine; since these differences are perceivable; and I do not deprive you of any thing you perceive.

576.—*Objection.* By making God the author of all the motions in nature, you make him the author of those that are sinful.

577.—*Answer.* The moral turpitude of sin does not consist in the physical action or motion, but in the deviation of the will from the laws of reason and religion; thus killing in one's own defence, is not thought sinful, though the outward act be the very same as that in the case of murder. Besides, God is not the only agent who produces motions in bodies; the human mind hath certain limited powers of producing it under the direction of its own will, ultimately derived from God.

578.—*Objection.* But is not the *momentum* of

of bodies in motion in a compound ratio of the velocity and quantity of matter contained in them?

579.—*Anſwer.* True, taking matter to denote the extenſion and ſolidity perceived by the ſenſes; and *gravity* is proportional to the quantity of matter, ſo underſtood, but not to that of a ſuppoſed *ſubſtratum.*

580.—*Objection.* Can it be ſuppoſed that all the world are deceived in believing the exiſtence of matter?

581.—*Anſwer.* It may: have not mankind been deceived in believing, that colours and other ſecondary qualities, as they are called, are external to the mind? That the earth ſtands ſtill, and that the ſun and ſtars move round it, &c.?

582.—*Objection.* The motion of the earth is not perceived, and yet it exiſts.

583.—*Anſwer.* It is not perceived by us, but it is by other minds, and would by us, if we were placed at a certain diſtance from it; that is, if we had experienced a certain ſeries of ſenſations; for motion exiſts only in the mind.

584.—*Objection.* Since, according to you, men

men judge of the reality of things by their ſenſes, how can a man be miſtaken in thinking the moon a plain, lucid ſurface, about a foot in diameter? Or a ſquare tower, ſeen at a diſtance, round? Or an oar with one end in the water crooked?

585.—*Anſwer.* He is miſtaken, not with regard to what he actually perceives, but in the inference he makes from his preſent perceptions; thus, in the caſe of the oar, what he immediately perceives by ſight is certainly crooked, but if he thence conclude, that upon taking the oar out of the water, he ſhall perceive the ſame crookedneſs, or that it would affect his touch as crooked things are wont to do, in that he is miſtaken; in like manner, if he ſhall conclude, from what he perceives in one ſtation, that, in caſe he advances towards the moon or tower, he ſhould ſtill have the ſame perceptions, he is miſtaken; but his miſtake lies not in what he perceives immediately and at preſent, (it being a manifeſt contradiction he ſhould err, in reſpect to that) but in the wrong judgment he makes concerning the perceptions he apprehends to be connected with

with thoſe he immediately perceives or concerning thoſe which, from what he perceives at preſent, he imagines he would have in other circumſtances.

586.—*Objection.* If, whatever perceptions we receive from without are in the mind that impreſſes them, the ſenſations of pain and uneaſineſs are in God, or, in other words, God ſuffers pain, which is abſurd.

587.—*Anſwer.* That God knows what pain is, even every ſort of painful ſenſation, and what it is for creatures to ſuffer pain, is certain; but to ſuppoſe he can ſuffer pain, is impoſſible. (See N° 395.)

588. We are chained to a body; that is to ſay, our perceptions are connected with corporeal motions. By the law of our nature, we are affected by every alteration in the nervous parts of our ſenſible body; which ſenſible body, rightly conſidered, is nothing but a complexion of ſuch qualities or perceptions as have no exiſtence diſtinct from being perceived by a mind: ſo that this connexion of ſenſations with corporeal motions, means no more than a correſpondence in the order of nature betwixt two ſets of things immediately

 perceivable

perceivable. But God is a pure ſpirit, diſengaged from all ſuch natural ties.

589.—*Objection.* If the true nature of a thing be diſcovered by the ſenſes, why is not the ſame figure, and other ſenſible qualities, perceived all manner of ways? And why ſhould we uſe a microſcope, the better to diſcover the true nature of a body, if it were diſcoverable by the naked eye?

590.—*Anſwer.* The reaſon is, that, to avoid multiplicity of names, men combine together, and denote by one name, ſenſations received by different ſenſes, or by the ſame ſenſe at different times, or in different circumſtances, when obſerved to have ſome connexion in nature, either with reſpect to coexiſtence, or ſucceſſion. Thus a father and all his children have the ſame ſurname; thus the colour, ſmell, taſte, and tangible ſenſations are referred to one name: for inſtance, a *roſe*, though perceived by different ſenſes, and if any of theſe ſenſations be miſſing, we alter the name; and hence when I examine, by my other ſenſes, the coloured tangible object which I had perceived, or was ſuggeſted by the ſight, it is not to perceive better what I had

had perceived by ſight, the object of one ſenſe not being perceived by another ſenſe; but my aim is to know what ſenſations are connected together; for the more a man knows of the connexion of theſe, (as by chymical analyſis, &c.) the more he may be ſaid to know of the nature of things; ſo when I look through a microſcope, it is not to perceive more clearly what I already perceive by my naked eyes, but to find what different perceptions I may receive through that inſtrument, for the ſenſes do not in all circumſtances preſent the ſame ſenſation. See N° 450.

591.—*Objection.* Is it not your opinion, that by our ſenſes we perceive only the ſenſations in our own minds? does it not therefore follow that no two men can ſee the *ſame* thing?

592.—*Anſwer.* No, if words be taken in the uſual ſenſe; for men generally call that the *ſame*, when no diſtinction or variety is perceived; and even when ſome variety is perceived, the word *ſame* is often uſed by ſome, and not uſed by others; thus, ſuppoſe a houſe, whoſe walls and outward ſhell remaining unaltered, the chambers are all pulled down, and new one's built in their place, ſome would

call

call this the *ſame*, and others *not the ſame* houſe: but is not this a mere diſpute of words? ſome attending only to the ſimilar part of the object, and ſome only to the diſſimilar, for all would agree in their thoughts of the houſe itſelf.

593. The objection here made applies equally to the hyloiſtic ſcheme, for even the hyloiſts muſt allow, that the *colour* ſeen by one perſon, is not, in the ſtrict ſenſe, that ſeen by the other, each perceiving only *his own* ſenſation.

594.—*Objection.* How can extended things, ſuch as houſes, trees, &c. be contained in an unextended ſubſtance, as the mind is?

595.—*Anſwer.* They cannot be ſaid to be contained in it, in the groſs literal ſenſe, as bodies are ſaid to exiſt in a place; all that is meant is, that they are perceived. In the literal ſenſe, extended things are ſaid to be contained within other things, when their parts are perceived to be within the parts of the other things; but the parts of trees, &c. are not ſo perceived within the parts of the mind, as the mind has no parts.—This objection equally affects the hyloiſts, for they alſo

muſt

muſt allow, that the *ideas* of extended things exiſt in an unextended mind.

596.—*Objection.* You will not deny, that trees may be found in a deſert, where they were never perceived by man.

597.—*Anſwer.* True, but they were perceived by other minds, at leaſt by the Divine, otherwiſe they could not be ſaid to exiſt; they could have neither colour, taſte, ſmell, extenſion, or ſolidity, ſince theſe have been proved to be mere perceptions.

598.—*Objection.* After all, our diſpute is rather about words than things; we agree in the thing, but differ in the name: that we receive ſenſations from without is evident, and it is no leſs evident, that there muſt be powers without the mind, adequate to their production; and as theſe powers cannot exiſt by themſelves, ſome ſubject of them muſt neceſſarily be admitted: this I call *matter* and you call *ſpirit*; this is all the difference; this being is not extended, but it hath the power of exciting in you the perception of extenſion; it is alſo active, ſince it exerciſes powers. Or you may call it a third nature diſtinct from matter

matter and ſpirit ; you cannot call it ſpirit, as that implies the power of thinking alſo.

599.—*Anſwer.* I muſt call it ſpirit, in order to have ſome notion of what I ſay : but I have no notion of any action diſtinct from volition, neither can I conceive volition to be any where but in a ſpirit ; therefore, when I ſpeak of an active being, I am obliged to mean a ſpirit: beſides, what can be plainer, than that a thing which hath no ideas in itſelf cannot impart them to me; and if it has perceptions, ſurely it muſt be a ſpirit. I know not what you mean by a third nature.

600.—*Objection.* How can creation be underſtood in your ſyſtem ?

601.—*Anſwer.* Creation conſiſts in rendering perceptible, things before imperceptible to finite minds, and in the order and gradation related by Moſes. That ſuch beings were preſent at the time of the creation, appears by Job, chap. xxxviii. ver. 5. 7: " where waſt thou " when I laid the foundations of the earth, " (the poles) when the morning ſtars ſung " together, and the ſons of God ſhouted for " joy ?" Their perceptions were not ſenſations, as they had no corporeal organs, but they might

might exactly resemble them, as our own perceptions constantly do when we dream, though not received by the intervention of the senses. At the time of the creation, a change, corresponding therewith, took place in the Divine intellect: this must be confessed, whatever system is embraced: objects must then have been presented to the Divine mind in a different manner from that in which they were known to him from all eternity, when they were merely possible. See N° 395.*

Objections stated in Berkeley's Principles of Human Knowledge.

602.—*Objection.* Does it not sound harsh to say, we eat and drink, and are clothed, by sensations?

* Berkeley explains creation in a different manner; he thought no change took place in the Divine intellect, but that the archetypes of sensible things existed in the Divine mind from all eternity; but that creation consisted in rendering them perceptible to finite minds: if that were all, there could be no creation of sensible things, if spirits did not exist, which I would not affirm. I acknowledge no archetypes in the Divine mind; his mode of knowledge is above our comprehension.

603. *Anſwer.* It does ſo: the word ſenſations not being uſed in common diſcourſe to ſignify the ſeveral combinations of ſenſible qualities, which are called *things*; but this does not concern the truth of the propoſition, which, in other words, is no more than to ſay we are fed and clothed with thoſe things which we *immediately perceive* by our ſenſes. Each aggregate hath its own particular name; thus a certain combination of *hardneſs*, *ſoftneſs*, *colour*, and *peculiar* taſte, is called *meat*; another, *varying* from this in ſome particulars, is called *bread*, &c.; other combinations of qualities *immediately perceived* are called *cloth*, &c.: it is true, neither the butcher nor the clothier think theſe to exiſt only in their minds; but the reaſon is, that they think the ſenſations themſelves, as the colours, taſtes, &c. to exiſt without, and independently of their minds; they think colours exiſt even in the dark, that vinegar is ſour, ſugar ſweet, *brandy hot*, even before they are taſted. Of the powers of exciting theſe ſenſations, they never think at all; yet it is now univerſally acknowledged by philoſophers, that theſe qualities exiſt only in the mind, and even that thoſe they call *powers*,

are

are in reality impotent, ſince to excite ſenſations they are obliged to have recourſe to the Divinity.

604.—*Objection.* Do we not ſee things actually without us, or at a diſtance from us, which, conſequently, do not exiſt in the mind; it being abſurd to think a thing ſeen at the diſtance of ſeveral miles ſhould be as near to us as our own thoughts?

605.—*Anſwer.* Do not we often in a dream perceive things as exiſting at a great diſtance? Do we not ſee things at a diſtance in a mirror? Are not extenſive proſpects remembered or repreſented, ideally or imagined? Yet all theſe exiſt only in our own minds; but it has already been proved, that the diſtance, or outwardneſs, of tangible objects (which are principally denoted by the name of things,) is neither immediately perceived by ſight, nor judged of by lines or angles, or any thing that hath a neceſſary connexion with it, but is barely ſuggeſted by certain occular ſenſations, which, in their own nature, have no ſimilitude or relation to diſtance, or things placed at a diſtance; but by a connexion taught us by experience, they ſignify and ſuggeſt diſtant

ſenſations

ſenſations to us, nearly as the words of a language ſuggeſt the ideas they are made to ſtand for.

606.—*Objection.* If extenſion and figure exiſt in the mind, muſt not the mind be extended and figured?

607.—*Anſwer.* No, no more than it can be called red or green when it perceives thoſe colours; muſt not all confeſs that we have ideas of plains, mountains, rivers, &c.? Yet no one thence infers that the mind, or thoſe ideas, are extended. To have extenſion attributed to the mind, it were neceſſary that the mind ſhould have parts, but to perceive extenſion that is not neceſſary: figure, in like manner being the termination of extenſion, is perceived by the mind, but cannot be attributed to it, having no extenſion.

608.—*Objection.* Is not the concurrent univerſal aſſent of mankind an invincible argument in behalf of matter, or the exiſtence of external things?

609.—*Anſwer.* Men, indeed, act as if they believed the immediate cauſe of their ſenſations were ſome ſenſeleſs unthinking being; but that they ſhould clearly apprehend any

meaning

meaning marked by these words, and form thereof a settled *speculative* opinion, this I am not able to conceive: this is not the only instance wherein men impose upon themselves by imagining they believe those propositions they have often heard, though at bottom they have no meaning in them.—Do not the bulk of mankind look on the antipodes and motion of the earth as monstrous absurdities? The universal mistake originates in this, that the Supreme Being, the true and sole cause of our sensations, is not marked out to our view by any particular collection of sensible qualities, as human agents are by their size, complexion, limbs, and motion; and because his operations are constant, regular, and uniform; whenever the course of nature is interrupted by a miracle, or even varied by a prodigy, or rare event, men are ready to own a superior agent.

610.—*Objection.* To what purpose then serves the various organization of vegetables, and the admirable structure of the parts of animals?

611.—*Answer.* Though the fabrication of all these parts and organs be not absolutely necessary to the production of any effect, yet

it is necessary to the production of things in a constant regular way according to the laws of nature, as there are several laws that run through the whole chain of natural effects: these are learned by observation and study, and may be applied to the construction of artificial things for the use of mankind: thus a telescope is formed exactly on the same principles as the human eye, and the image formed on the retina evidently serves for no other purpose: if men had properly attended to the structure of the eye, telescopes might have been invented many ages ago;* and it was by attending to it, that a defect in dioptric telescopes was actually mended.† By attending to the structure of the ear, accoustic instruments have been invented; and from observations on the structure of the human neck, other mechanisms have been contrived.‡

Many more such inventions will probably occur in future ages; the process of incubation has taught men the artificial multiplication of birds to any desired degree:

* See the similarity of both instruments of vision beautifully illustrated in Paley's Natural Theology, p. 40.

† Ibid. p. 23. ‡ Ibid. p. 100.

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the art of brewing originated from experiments made on corn at different ſtages of its growth; and by the diviſion of its ſprouts, a method has been found of multiplying it to an aſtoniſhing degree. Even where the proceſſes of nature in animals and vegetables are not perceived by us, ſtill the laws that govern their production remain, and cauſe them to be perceived by us, when expoſed to our view in that particular manner and ſtate which they ſhould exhibit if they had been all along perceived. Dr. Paley well remarks, that it is only by the diſplay of contrivance that the exiſtence, the agency, and the wiſdom of the Deity, could be teſtified to his rational creatures. Nat. Theology, p. 42.*

SECT. VII.

OBJECTIONS OF MR. DESTUTT TRACY.†

612. This gentleman ſets out with ſuch violent prejudices, ſo groſsly miſconceives

* The anſwer to the objections ſtated in this number is ſo complete, that even Dr. Doddridge allows its validity, in the midſt of his groſs miſconceptions of the Berkeleyan ſyſtem. See his Lectures, vol. I. p. 159.

† Mem. of the French Inſtitute, vol. III. p. 515.

Berkeley's tenets, entertains ſuch open contempt for all preceding philoſophers, that he ſcarcely thinks it neceſſary to employ any other argument than ridicule.

He tells us, that "when firſt he ventured to ſpeak of metaphyſicks, he did not "think that *evidence itſelf* would become a "ſubject of debate; that he did not think it "neceſſary to inquire whether the univerſe "itſelf was not a vain *phantom*, and life a ſucceſſion of *illuſions*." How groſs a miſrepreſentation! as if Berkeley had not clearly ſhewn the difference betwixt illuſions and realities, he adds, "without loſing myſelf in "chimeras, I took things as they *truly* are:" an Algonquin would ſay as much, if the Copernican Syſtem were expoſed to, and rejected by him. And again, "this opinion might I "think be ſimply rejected as abſurd, if two ce-"lebrated men had not mentioned it, or ſome-"thing very near it." Theſe I ſuppoſe were *Deſcartes* and *Malbranche*; but he might have added more; for inſtance, *Condillac*, who thought it at leaſt doubtful whether extenſion be any thing elſe than a ſenſation;* *D'Alem-*

* Traité des Senſations, Part IV. chap. v. p. 339. in 12mo.

bert,

bert, who, in 1763, though himſelf a materialiſt, ſaid, that Berkeley's Syſtem, though abſurd, could not be refuted; *Turgot*, who expreſsly aſſerts, that exiſting objects were nothing elſe but ſyſtems of ſimultaneous ſenſations, conſtantly re-appearing in ſimilar circumſtances, whoſe variations were governed by certain laws.* Mr. *Merian*, in many parts of the Memoirs of Berlin, evidently inclines to the Berkeleyan theory; nor is *Schawb* very diſtant from it. *Leibnitz* thought bodies to be phænomena; I ſay nothing of many Engliſhmen of diſtinguiſhed penetration and talents already mentioned, N° 529.—Yet Mr. Tracy thinks it a great hardſhip to be obliged "*ſeriouſly* to examine the queſtion, it "being no other (he ſays) than whether his "own body be ſomething or nothing: a "queſtion (ſays he) which would not have "exiſted, if his predeceſſors had not thought "proper to deny evidence itſelf, and exerted "all the ſubtlety of their wits to combat the "teſtimony of their conſciouſneſs." Not ſatisfied with theſe and other extravagant aſ-

* Vie de Turgot, p. 17.

 ſertions,

ſertions, he calumniates Berkeley, pretending that he affirms we are ourſelves parts of the Supreme Being.*

613. Secondly, he aſſerts the whole of Berkeley's ſyſtem is grounded on a perpetual equivocation, confounding the impreſſion made on a ſentient being, which we call a ſenſation, and the quality which reſides, or may reſide, in another being, which is the cauſe of this ſenſation.†

614. Yet ſo far from confounding ſenſation with the cauſe of ſenſation, Berkeley peremptorily denies that it can have any other cauſe but the Supreme Being; and that any quality reſiding in any other being can be the cauſe of it.

615. Thirdly, he tells us, "that, Berkeley "begins by owning the intervention of the "ſenſes; now by the ſenſes ſuppoſe organi- "zation; theſe organs are material and ſen- "ſible things; and if, as Berkeley pretends, "ſenſible things are only ſenſations, the or- "gans muſt alſo be ſenſations; Quelle epou- "vantable Galimathias!"

616.—*Anſwer.* It is certain ſenſations, even

* P. 518. † P. 519.

of our own bodies, are obtained only through the intervention of the organs of the different ſenſes; the organs of ſenſe, when felt or expoſed to view, are known to us; but when hidden, as many of them are, they are known to the Divine Mind, and that ſucceſſion of laws by which they are governed, exiſts in the ſame manner as if they were actually perceived by ourſelves. See N° 505, and the ſucceding numbers.

617. Fourthly, "Berkeley's whole ſyſ-
"tem would be ſubverted, if it were denied
"that any thing but mind were capable of ſen-
"ſations: one would be much embarraſſed
"to prove why *mind and ſpirit* alone ſhould
"have the excluſive privilege of having ſen-
"ſations, and why this prerogative ſhould be
"incompatible with the nature of what is
"called *body*."

618.—*Anſwer*. No metaphyſician would be in the leaſt embarraſſed, taking *body* in the ſenſe in which hyloiſts commonly underſtand it, for an inert, ſolid, extended, diviſible ſubſtance.

619. This is all I find objected to Berkeley in this boaſted refutation; nay it concludes

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with an almoſt direct avowal of the truth of his theory; for Mr. Tracy tells us, that two of Berkeley's aſſertions are undeniably true: namely, firſt, that there does not exiſt a being that can be called *matter*; but individual bodies alone exiſt, and not matter in general. And, ſecondly, that theſe bodies are known to us, only by the ſenſations which they cauſe; and that, relatively to us, *nothing exiſts but ſenſations and ideas*. Now, excepting the falſe ſuppoſition of cauſation, theſe aſſertions are perfectly Berkeleyan. It is true he attributes to Berkeley an aſſertion which he deems hypothetical, namely, that the cauſe of our ſenſations exiſts in a mind; now Berkeley ſtrongly contends that the will of the Supreme Being, and not barely his thoughts, is the cauſe of our ſenſations.

Objections of the anonymous Author of the article Metaphyſicks, in the Britiſh Encyclopædia, p. 545.

620. This writer is by far the moſt candid, unprejudiced, and clear-ſighted, of all the opponents of Berkeley; yet I cannot help thinking

ing he has been betrayed into an error by not ſufficiently attending to the doctrine of that great metaphyſician. He thinks Berkeley loſt ſight of that proper and accurate diſtinction firſt laid down by him, betwixt *ideas* and *notions*; and as he admits we have no *idea* of ſpirit, becauſe it cannot be perceived but only by the effects it produces: but yet it muſt be owned we have a *notion* of ſpirit, and alſo of the operations of the mind, ſuch as willing, loving, hating, as we underſtand the meaning of thoſe words; ſo this author thinks,

Firſt, that what is here ſaid of ſpirit, is equally applicable to material or ſolid ſubſtances; we have no idea, he ſays, of ſolidity or extenſion, becauſe they are not originally impreſſed on the ſenſes; but we have diſtinct, though relative, notions of them, for they are clearly perceived by the effects they produce; this he thinks at leaſt poſſible, as the biſhop owns, that from a cauſe, effect, operation, ſign, or other circumſtance, we may reaſonably infer the exiſtence of a thing not immediately perceived, and that it were abſurd to argue againſt its exiſtence from our having no direct or poſitive notion of it. Such, the

the author affirms, is exactly the case with respect to solid substances; these, he says, are not immediately perceived, but we infer their existence from effects, signs, and other circumstances, and we have very clear, but relative notions of them. Thus a man can open or shut his empty hand; but when he grasps an ivory ball, of some inches in diameter, he feels, that though the same power is exerted, his hand cannot be shut; he is conscious there is no change in himself, and being certain that every effect must have a cause, he infers, with the utmost confidence, that the cause which prevents his hand from shutting is in the ball; or, in other words, that the thing which communicates to his eye the sensation of colour, and impresses on his hand a sensation of touch, must be solid and impenetrable. Solidity, however, he adds, is not the sensation itself, it is only the cause of the sensation, and therefore is so far from being an idea in our minds, that we are conscious our notion of it, is that of a thing totally different from all our ideas of a thing external, at least to our minds. This notion is merely relative, and inferred from the effects pro-

duced

duced on our ſenſes: that it is the ſame thing that communicates to our eye the ſenſation of colour, and has the power of reſiſting the compreſſion of our hand, is evident, becauſe, when the ball is thrown away, the reſiſtance as well as the actual ſenſation vaniſh.

621. I have given this plauſible reaſoning at full length, as its links are ſo connected, that each would loſe much of its apparent force if disjoined: but, to detect the fallacy of each, it is neceſſary to examine them ſeparately, though much of it has already been obviated by Berkeley himſelf. See Nº 569.

622. And, firſt, I deny that it follows, that we have any notion of matter or material ſubſtance from this, that we have a notion of ſpirit though we can have no idea of it; for we are conſcious, that all the ſenſations and operations of our minds are the ſenſations and operations, each of the ſame mind; of this we are intuitively certain; and by this knowledge we define what we mean by *ſpirit*, and are ſaid to have a *notion* of it: but can we ſay with certainty, that the external cauſe of our ſenſations is matter? The author himſelf, p. 547, allows we cannot: nay, he *muſt* allow

allow it, for thoſe who contend for the exiſtence of matter, own that it cannot act upon ſpirit, and are obliged to call in the Supreme Being. So that its exiſtence cannot be inferred from any effect, operation, ſign, or other circumſtance: its probability he reſts on the general voice of mankind, p. 547. But of how little avail that is, has been ſhewn. N° 609, and its origin in the fourth ſection of this chapter. Moreover, a notion of it is impoſſible, as it involves a repugnancy. See N° 529. 550. 569.

623. Secondly, ſolidity is a mere ſenſation, and not a notion, for it is felt, as Dr. Reid himſelf acknowledges; nor can any ſolid ſubſtance be inferred from it. A hand, graſping a ſolid ball three or four inches in diameter, cannot be cloſed, though an empty hand can; but what prevents its cloſing but the ſenſation of reſiſtance, called *ſolidity*? and, that this ſenſation is merely relative, and not a thing that has an independent exiſtence, is evident, ſince a hand much ſtronger than the human, would find it perfectly ſoft or flexible. See N° 480. Water which, relatively to us, is

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ſo ſoft, is relatively to ſome inſects ſo hard, that they can walk and run upon it.

624. Thirdly, being intuitively certain, that every effect has a cauſe, the author thinks it may be inferred, that the cauſe which prevents the hand from ſhutting is in the ball. But he ſhould recollect, that the ſenſation of reſiſtance is included in the ſignification of the word *ball*, and in this ſenſe it may be ſaid to be in it; and it is this ſenſation that prevents cloſing the hand: no other cauſe produces that effect, but the cauſe of the ſenſation itſelf, namely, the Supreme Being. That an unknown fictitious thing ſhould be included in the ball, is perfectly unintelligible. To ſay we have a notion of ſuch a thing, is mere begging and taking for granted the very point in queſtion, and without any ſort of neceſſity, ſince the Divine intervention muſt at laſt be owned, which alone is ſufficient.

625. Fourthly, the author adds, that it is the ſame *thing* which communicates to our eye the ſenſation of colour, and has the power of reſiſting the compreſſion of our hand, is evident. This is true, if the word *thing* be taken for an aggregate of ſenſations, as it ſhould

be,

be, for colour is one of that aggregate; but it cannot be inferred, that the sensation of resistance or solidity, is that which causes colour, which is I suppose what is meant by communication; the colour is referred to it only by a long and early association.

626. Again, the author contends, that Berkeley's argument, in putting the primary qualities on the same footing as the secondary, is fallacious; for that it is not true, as Berkeley asserts it to be, that the primary qualities are inseparably united with the secondary; for the author shews, that the extension, solidity, and rotundity, of a ball, may be perceived in the dark. This is true with respect to colour, for blind men perceive rotundity and solidity. But the bishop does not confine his argument to colour; his words are, "for my "own part, I see evidently, that it is not in "my power to frame an idea of a body ex"tended and moved; but I must withal give "it some colour, *or other sensible quality*, which "is acknowledged to exist only in the mind." Principles of Human Knowledge, sec. X. Thus his argument remains unanswerable; for heat, cold, or warmth, are allowed to be secondary qualities, and to exist only in the mind; yet

solidity

solidity or extension cannot be abstracted from one or other of these, when any distinct sensible impression is made on the organs of tact; they must exist where these secondary qualities exist, namely, in the mind alone.

627. Lastly, the author candidly owns, that by the immediate agency of the Deity all our sensations might be what they are, though matter had no existence; and that Berkeley had proved this, by unanswerable arguments, and that he obviated the irreligious sophistry of Hume. It is strange then he did not perceive that matter was entirely useless, since, even admitting its existence, the Divine agency must still be called in: and since he allows that every thing might go on just as well, even if it did not exist, he should also allow that its existence is at least doubtful.

Objections of Dr. Reid.

628. This justly celebrated professor informs us, he had once embraced the Berkeleyan doctrine, but had afterwards renounced it, in consequence of his having rejected that of ideas: his objections are so widely diffused through several volumes, that it is not easy to

collect

collect them; nor indeed is it necessary, for most of them have been already obviated. His principles, I allow, are more subtle and ingenious than those commonly adopted by Berkeley's opponents, but their truth is far from being proved, as I shall have occasion to state in the appendix to this section.

629. First, the Doctor tells us, "that by his "senses he perceives figure, colour, hardness, "softness, motion." This nobody will dispute; "but these (he says) are qualities, and "must be in something, that is figured, co-"loured, hard or soft." This has been answered, N° 624. Figure, colour, &c. are not in any thing distinct from the mind, and by this they are perceived, but not contained in the gross literal sense. See N° 595. 606. "It is "not to these qualities, but to that which is "the subject of them, that we give the name "of body." I shall here content myself with examining one of these qualities, namely colour. The Doctor tells us, that "all men "who are not tutored by modern philosophy, "understand by colour, not a sensation of the "mind, which exists only when perceived, "but a quality, or modification of bodies,

"which

" which continues the ſame, whether ſeen or " not."—" When a coloured body is pre- " ſented, there is a certain apparition to the " eye or to the mind, which we call the *ap-* " *pearance of colour*, and this exiſts only when " perceived; but by the conſtitution of our " nature we are led to conceive it as a ſign " of ſomething external: it ſuggeſts the con- " ception and belief of ſome unknown qua- " lity which occaſions the idea; and it is to this " quality (which is altogether unlike colour) " that we give the name of colour."*

630. Now I would venture to appeal to any unprejudiced perſon, whether it be not to what we *ſee*, and not to any unknown quality that we do *not ſee*, that all mankind give the name of *colour*: † it is true they think it to continue when unſeen, but that is becauſe they think the very thing they ſee (which philoſophers call the ſenſation) remains in the dark; nor do they ever imagine any cauſe or quality cauſing colour but dying ingredients. They have the ſame opinion of the permanence of colour when unſeen that the Doctor

* Reid on the Mind, 171, 172, 173.

† See Stewart, 579.

has of the permanence of ſolidity and extenſion when *unfelt*; and as he thinks theſe immediately perceived, and not their cauſes, they alſo think colours immediately perceived, and not any fictitious cauſes. How much would they be ſurpriſed if they heard of the diſtinction betwixt *colour* and *the appearance* of colour, which no way reſembled colour? According to the Doctor, the appearance of colour ought to be the appearance of thoſe modifications or qualities which the Doctor calls real colours; yet, ſo far are theſe from *appearing*, that he owns them to be unknown; and though he ſays they are unknown, yet ſtill he ſays they are unlike to any colour.

631. The reaſons that induce the Doctor to call theſe qualities or modifications of bodies *real* colours, are, firſt, "that theſe modi-" fications remain when the appearance of "colour ceaſes." But who can tell, ſince they are unknown? And, even if they did remain, why ſhould they be deemed the cauſes of colour, to which they are altogether unlike, and which they are altogether incapable of producing, any more than the other qualities of a coloured body, which are alſo thought to remain when unperceived? I ſay

cauſes,

causes, because they cannot be considered as *signs*, since they are unknown. When colours are unperceived by any other mind, they exist only in the Divine. The laws of the Supreme Being are the only cause, either of their existence or re-appearance, as all must allow. The causes the Doctor assigns, and which he thinks mankind call *real colours*, are altogether unintelligible; for, as Locke justly observes,* "sensations discover nothing of bulk, figure, "or motion of parts in their production; nor "can reason shew how bodies, by their bulk, "figure, and motion, should produce in the "mind the ideas of *blue* or *yellow*, &c. The "ideas we have of colours, sounds, &c. con- "taining in them nothing at all of bulk, figure, "or motion, we (that is the bulk of man- "kind) *are not apt* to consider them as the ef- "fects of the primary qualities, which ap- "pear not to our senses to operate their pro- "duction, and with which they have not any "apparent congruity or connexion." Therefore, by the testimony of Mr. Locke, it is not on these primary qualities, or their mo-

* B. ii. chap. viii. sec. 25.

 difications,

difications, that the bulk of mankind bestow the name of colour; on the contrary, he says, that "we (the bulk of mankind) are forward to imagine, that those ideas are the "*resemblances* of something really existing in the "objects themselves,"* and so in fact they all think.

632. Secondly, the Doctor tells us, "the colour of a rose remains when the *appearance* changes, as it does when the rose is viewed through a pair of green spectacles; but he does not conceive that the colour of the rose is changed."†

633. I answer, that not only in appearance, but in reality, the colour of the rose is changed; for the colorific sensation of the spectacles and that of the rose are mixed, and the mixed colour alone is perceived; but the colour of the rose singly would reappear, if the spectacles were removed, and in that sense may be said not to be changed, and in no other. This the Doctor himself must allow, for he cannot pretend the sensation itself is

* Stewart on the Mind, p. 73, in 8vo.

† Reid on the Mind, p. 171.

permanent,

permanent, but only the cauſe of the ſenſation. Such changes are incident to other ſenſations alſo. Thus, a ſweet taſte and a ſalt taſte are agreeable apart, but nauſeous when mixed: a ſimple muſical ſound is agreeable, and ſo is it when combined with its ſharp third, but ſhocking when joined with its ſharp fourth: half a dozen drugs of a certain kind, ill ſcented when ſmelled ſeparately, being put together, emit an agreeable ſmell, as Lemery experienced; the ſmell of each no longer remains, but is loſt in the mixture.

634. Thirdly, the Doctor adds, "we may, "by a variety of optical experiments, change "the appearance, figure, and magnitude, in a "body, as well as that of colour; we may "make one body appear to be ten; but all "men will believe, that as a multiplying glaſs "does not produce ten guineas out of one, "nor a microſcope turn a guinea into a ten-"pound piece, ſo neither does coloured glaſs "change the real colour of the object ſeen "through it."

635. Here the Doctor has overlooked three points worthy of his conſideration: Firſt, that

 colours

colours may be considered as sensations, and also as signs. Secondly, that objects, such as guineas, include tangible as well as visual sensations. Thirdly, that glasses may affect visual, but cannot tangible sensations; therefore they may change the visible colours, or magnitude, or figure of an object, or even multiply the same colour, figure, or magnitude, and thus present ten visible guineas, but can affect no alteration in the tangible, with which they have no relation or connexion; hence the parity entirely fails: nay even, as *signs*, the spectrums they produce are inoperative; for the power of signs arises from repeated associations with the things signified; and here there is not even a single association but with the tangible sensation of the solitary guinea. How the microscope acts has been already explained, N° 590.

636. As to what the Doctor says, "that "if a person should deny that colour, figure, "motion, resistance, &c. are qualities, he "would leave him to enjoy his opinion, as a "person who denies first principles, and not "fit to be reasoned with;" I can only say, that it surprises me much, as he owns he was

once

once perſuaded of the truth of the Berkeleyan doctrine; and ſurely he had at no time denied firſt principles.

637. Further the Doctor objects, that in every language there are adjectives which require a ſubſtantive to which they belong; that is, every attribute muſt have a ſubject: this he takes to be a firſt principle. And ſurely this principle may be admitted, if, as adjectives are of themſelves unlimited, by *belonging* he would underſtand reference to ſomething elſe, many indeed referring to a tangible ſenſation which is felt, prognoſticated, or included in the ſubject; but meaning, as he certainly does, a ſubject of inherence, I think him wrong, even in the caſes he adduces of *wiſdom, virtue, goodneſs*, for they are not qualities, but mere abſtract words, denoting different actions deſerving approbation. Nor is he leſs ſo in attributing primary or ſecondary qualities to an unknown, unintelligible, uſeleſs material ſubſtance, an attribution which it were ſtrange to erect into a firſt principle.

638. And as to what the Doctor preſſes upon us with reſpect to the general agreement of mankind in believing the exiſtence

of matter, it ſeems to me of little weight: ſuch agreement would equally prove the truth of polytheiſm, idolatry, magick, &c. from the belief and practice of which abſurdities, even the Jews were difficultly reſtrained; to ſay nothing of various phyſical errors generally credited. Error in ſpeculative matters is much more natural to unreflecting man, than truth.

639. Again, the Doctor ſays, "ſuppoſe I "am pricked by a pin, the pain I feel is a "ſenſation, but the pin is not a ſenſation, nor "has it any reſemblance to a ſenſation; the "pin has figure, thickneſs, length, and weight; "a ſenſation has none of theſe qualities."

640.—*Anſwer*. This argument is the principal ſource of all the Doctor's miſconceptions of this ſubject. To undeceive him, I would barely aſk him, is the pin any thing elſe but its length, thickneſs, figure, and weight? If it be not, how can it be ſaid to *have* thoſe qualities? If it be, what is it? He ſurely cannot tell. Again I would aſk him, does he know any thing of the pin but what he perceives by his ſenſes? and is not perception by the mediation of the ſenſes univerſally called a ſenſation?

tion? Does he not ſee the colour of the pin? does he not feel its length, figure, and thickneſs, and alſo its point? can he not form an idea of the pin in its abſence? and can he have an idea of that which was never perceived by the ſenſes? is not the word *pin* a term denoting the aggregate of theſe ſenſations? In this ſenſe a pin may be ſaid to have figure, length, thickneſs, and ſharpneſs, juſt as a houſe is ſaid to have walls, doors, windows, &c. they being its component parts. A ſenſation, or an aggregate of ſenſations, conſidered as modifications of the mind, cannot be ſaid to have length, thickneſs, or figure, (but they may be ſaid to be perceptions thereof, ſee N° 606, 607,) no more than they can be ſaid to be coloured, when colours are perceived. The Doctor muſt allow, that when, in the abſence of the pin, he forms an idea of it, or a conception as he chuſes to call it, his idea repreſents to him the figure, length, and breadth, of the pin; yet he will not ſay, that his idea or conception has any length, thickneſs, or figure.

641. Profeſſor Stewart* owns, that "it is

* P. 3.

"not

" not matter which we perceive by our ſenſes, " but only extenſion, colour, figure, and cer- " tain other qualities, which the conſtitu- " tion of our nature leads us to refer to ſome- " thing which is extended, figured, and co- " loured : the caſe, he ſays, is preciſely the " ſame with reſpect to mind ; we are not " conſcious of its exiſtence, but we are con- " ſcious of ſenſation, thought, and volition ; " operations which imply the exiſtence of " ſomething which feels, thinks, and wills."

642. Here I muſt beg leave to differ from this excellent metaphyſician : the conſtitution of our nature cannot force us to believe that any thing is extended, figured, or coloured, but what we feel and ſee, though the conſtruction of language often compels us to ſpeak of theſe ſenſations as if they were qualities of ſomething elſe : this was explained, N° 541. There are neither ſubſtantives nor adjectives in our perceptions ; theſe are mere creatures of language. Now language has given birth to the moſt monſtrous deluſions ; it ſeduced the ſcholaſtics to think that ſome diſtinct reality correſponded even to the moſt abſtract terms ; hence *relations* were thought

thought to be realities diſtinct from correlated things; hence *nature* was thought to be a real thing, diſtinct from the perſons to which it was attributed, and at laſt erected into a goddeſs; hence *equinity*, *hecceity*, *petreity*, were believed to have correſponding entities; and many other quiddities which I paſs over. Matter, as ſomewhat diſtinct from our perceptions, is juſt ſuch another abſurdity; nay more intolerable, as it ſuppoſes the union of things incompatible, namely, ſenſations and an inſentient ſubſtance; for extenſion and figure have been proved to be ſenſations, and colour is allowed to be a ſenſation; for what Dr. Reid calls colour, he allows to be totally unlike any that was ever ſeen; ſee N° 629. If the conſtitution of our nature forced us to believe the exiſtence of matter, ſurely neither Deſcartes nor Malbranche would have thought revelation neceſſary to induce us to believe the exiſtence of bodies, and certainly they were not ſceptics.

643. As to the parity which the learned profeſſor inſtitutes betwixt belief in the exiſtence of mind, and the exiſtence of matter, it is far from being juſt. The exiſtence of mind

is

is demonſtrated by our conſciouſneſs of the identity of the principle of its various perceptions and operations; ſee N° 372; and hence none but Mr. Hume pretended to entertain even a ſpeculative doubt of it; but of the exiſtence of matter, no proof has ever been given; on the contrary, it has been refuted and ſhewn by Berkeley to be impoſſible, in whatever ſenſe it can be taken, whether as cauſe, inſtrument, or occaſion, and abſolutely denied by other philoſophers of note, or at moſt believed as an article of faith. The profeſſor even owns, that the evidence of the exiſtence of mind is ſtronger than that for the exiſtence of matter; for the former, he ſays, is ſuggeſted by the ſubjects of our conſciouſneſs, and the latter by the objects of our perceptions. The caſe is then not preciſely the ſame, but far different; for this fictitious object of our perceptions was never perceived, but is merely an inference ſuggeſted by our prejudices. How then the learned profeſſor could ſtyle the ſentiments of Berkeley *reveries*, I cannot well imagine: that he was biaſſed by his partiality to Dr. Reid is evident; however,

ever, the Doctor never uſed ſo harſh an expreſſion.

644. That the concluſions of Berkeley are by no means ſceptical, is ſo evident, that Dr. Reid allows the fact; but I think the principles of the Doctor, as expoſed and concentrated by the learned profeſſor, lead directly to the moſt dreary ſcepticiſm; for the profeſſor* tells us, "that the mind is ſo formed, "that certain impreſſions produced on our "organs of ſenſe, by external objects, are "followed by correſponding ſenſations; and "that theſe ſenſations, which have no more "reſemblance to the qualities of matter, than "the words of a language have to the things "ſignified, are followed by a perception of "the qualities of the body, by which the im-"preſſions had been made. That all the ſteps "of this proceſs are equally incomprehenſible, "and that, for any thing we can prove to the "contrary, the connexion between the ſen-"ſation and the perception, as well as be-"tween the impreſſion and the ſenſation, "may be both arbitrary." Now if the con-

* Sewart on the Mind, p. 92.

nexion

nexion between ſenſations and perceptions be arbitrary, we may have ſenſations without perceptions; that is to ſay, we may have the ſenſation of ſeeing, and yet perceive nothing; that is, we may ſee, and yet ſee nothing; we may ſee a colour, or what Dr. Reid calls the *appearance* of a colour, and yet not perceive it; we may have the ſenſation of feeling, and yet perceive nothing. This indeed is *incomprehenſible*; if this be ſo, our whole life may be a dream, wherein we imagine we perceive things, and yet perceive nothing. Such is the conſequence of diſtinguiſhing ſenſation from perception. Perception may be indeed without ſenſation, as in God and angels, but ſenſation cannot be without perception, for they are identified, they being the ſame thing differently conſidered; ſenſation being knowledge gained through the mediation of the ſenſes, and perception being knowledge abſtractedly conſidered. Let it alſo be remarked, that the general incomprehenſibility of all things was the diſtinguiſhing tenet of the ancient ſceptics. Now what can be comprehended, if we may doubt of the connexion betwixt ſenſation and perception, or rather that

the former includes the latter? Yet the professor adds, "it is juſt as difficult to explain "how our perceptions are gained by the "means of ſenſations, as it would be upon "the ſuppoſition that the mind were all at "once inſpired with them." It would indeed be much more difficult, if the latter were diſtinct from the former; for a thing is ſufficiently explained if its cauſe be aſſigned; in caſe of inſpiration, God would be the immediate cauſe of our perceptions; whereas of a *nonentity*, ſuch as a ſenſation without a perception, no cauſe can be aſſigned.

645. Laſtly, the Doctor, after allowing that every thing relating to ourſelves would equally ſubſiſt in the Berkeleyan hypotheſis (as he calls it), as in that commonly received, and that the exiſtence of the Supreme Being would be placed in a ſtill ſtronger light than in the common;* yet ſtill he thinks, "it "takes away all the evidence we have of "other intelligent beings like ourſelves; "what I call a father, a brother, or a friend, "is only a parcel of ideas in my own mind, "and being ideas in my mind, they cannot

* 1 Reid, 252, 253. On the Mind, 107. Encyclop. Britt. 544. 547. 549.

poſſibly

" possibly have that relation to another mind, " which they have to mine, any more than " the pain felt by me, can be the individual " pain felt by another. I can find no principle " in Berkeley's system which affords me even " a probable ground to conclude, that there " are other intelligent beings like myself, in " the relations of father, brother, friend, &c. " I am left alone in the universe, &c."

646. To this I answer, that the Bishop has not overlooked this objection; he adverts to it in his Third Dialogue; he there tells us, " it is granted we have neither an *immediate* " *evidence* (such as we have of our own per- " ceptions,) nor a *demonstrative knowledge* " (such as we have of the existence of God) " of the existence of other finite spirits; but " it will not thence follow, that such spirits " are on a foot with material substances; " if to suppose the one be inconsistent, " and if it be not inconsistent to sup- " pose the other; if the one can be inferred " by no argument, and there is a probability " of the other; if we see signs and effects " indicating finite agents like ourselves, and " see no sign or symptom whatsoever that " leads to a rational belief of matter; I say, I have

" have a *notion* of ſpirit, though I have not, " ſtrictly ſpeaking, an *idea* of it, but know it " by reflexion, &c." Now by reflexion, I preſume, the Doctor might find, that he has no knowledge by ſenſation or perception of the minds of other intelligent beings like himſelf, but that he collects his knowledge of them from their actions and effects, analagous very nearly to his own, in ſimilar circumſtances, and every other ſign of their exiſtence; he has therefore not indeed a metaphyſical, but the higheſt moral and phyſical certainty of their exiſtence; he has no other of the viſcera of thoſe he converſes with; he neither ſees nor perceives their interior; does he therefore doubt of the exiſtence of thoſe parts? Secondly, as to the *bodies* of his father, brother, friend, &c. he certainly knows them immediately only by his own ſenſations; and ſurely the Doctor muſt allow this, ſo far as regards their colour, voice, language, and other ſecondary qualities, as they are called. By teſtimony he becomes acquainted with the foundation of the relation in which he ſtands to each of them; he can know it no otherwiſe in the Doctor's hypotheſis. And as to

what are called the *primary qualities*, as extension and figure, he not only knows them in his own perceptions, but from their constancy and uniformity in his own mind, and the similarity of his own mind to the minds of other individuals; he infers that sensations, such as those that constitute his own body, constitute also the bodies of those individuals: this judgment being formed in his earliest infancy, and incessantly repeated, becomes so habitual, that its consciousness is instantaneously forgotten, as is the consciousness of the necessary disposition of the tongue or lips for the pronunciation of words, though at first gradually learned.

647. I shall here conclude this important inquiry with some just reflections made by Dr. Reid himself,* leaving their application to the unprejudiced reader. "The world "has been so long befooled by hypothesis in "all parts of philosophy, that it is of the utmost consequence to every man, who would "make any progress in real knowledge, to "treat them with just contempt, as the reveries of vain and fanciful men, &c."

* 1 Reid, 78, 79.

And again, "the firſt rule laid down by the "great Newton is this; 'no more cauſes of "natural events ought to be admitted, but ſuch "as are both true, and are ſufficient for ex-"plaining their appearances." Now matter is avowedly not ſufficient to explain the origin either of ſenſations or of any other perception; for, even admitting it, all is ſtill incomprehenſible, and the Divine agency muſt ſtill be called in, and is the only ſufficient cauſe of all theſe events; therefore the interference of matter is totally ſuperfluous.

APPENDIX TO CHAP. II.

So many new obſervations, equally ſolid and ingenious, occur in Dr. Reid's writings, and his authority ſtands ſo deſervedly high in Great Britain, that I cannot totally diſmiſs this ſubject without examining the principles that unfortunately ſeduced him to abandon the antihyloiſtic ſyſtem, which he had once embraced. He was not then ſufficiently unprejudiced; but, filled with juſt abhorrence of the impious principles of Hume, he thought he could not fly to too great a diſtance from

 them.

them. The Berkleyan doctrine he precipitately conceived to have been their foundation. I shall confine myself therefore to such remarks as immediately relate to his opposition to it.

648. Berkeley having founded his doctrine on the three following propositions;

First, that what philosophers then called primary qualities of bodies, namely extension, solidity, figure, and motion, stood exactly on the same footing as those qualities which they called secondary, namely colours, sounds, heat, cold, &c.; and as these were admitted to be mere sensations, and consequently could not exist but in a mind or sensient substance; so neither could the so called primary qualities.

649. Secondly, that all sensations were impressed upon us *ab extra*; and as matter, even if such a thing existed, as it is commonly said to be, cannot act upon mind, therefore these sensations must be impressed immediately by the Supreme Being, or, which amounts to the same thing, in conformity to certain laws of which he alone is the author and

and alone executes; no other being possessing that power.

650. Thirdly, that we have notions of many things, for instance, of God and of the human mind; the import of abstract terms, &c.; though we can have no idea of them, as *ideas*, properly so called, are mere faint copies of sensations; and it is certain we can have no sensation either of God or of the human mind.

651. In opposition to the first principle, Dr. Reid denies that primary and secondary qualities stand on the same ground; First, "because our senses give us a direct and distinct notion of primary qualities, but of the secondary they give us but only a relative and obscure notion." I think they furnish us with a clear and distinct knowledge of both, for what can be clearer than our knowledge or perception of colours, sounds, tastes, smells, &c.; insomuch, that the very epithet *clear* is borrowed from the extreme perfection of visual perception; for by *clear* I mean what Locke calls a clear idea, namely, a full and evident perception.* And Condillac says,

* B. ii. C. xxix, sec. 4.

*quoi de plus clair que les perceptions de son, & des couleurs quoi de plus distinct?** And Leibnitz holds the same language.† So that the Doctor must have annexed some other signification to the word *clear* of which I am ignorant. It is true that the so called secondary qualities are incapable of definition, but that arises from their being so clear, that no definition can make them clearer. The Doctor says, our senses afford us only a relative notion of them; I suppose he means, a relation to tangible objects; but this relation arises not from their nature, but from a long and early association; and hence Cheselden's patient discovered no such relation at first. Many tastes, sounds, and smells have no such relation. The primary qualities seldom have any such relation, as they themselves, being the most important, are the things signified; yet sometimes they have, for the sight or feeling of a pear or of an egg will often suggest their respective tastes, but this does not prevent them from being in their own nature absolute.

* Connoiss. Hum. C. ii. sec. 11.
† Nouv. Essais, p. 213.

652. Secondly, the Doctor ſays, "there "are no diſputes about the nature of primary "qualities, no different opinions of the na-"ture of extenſion, figure, or motion; where-"as the nature of ſecondary qualities not "being obvious to ſenſe may be a ſubject of "diſpute." The Doctor ſurely did not re-collect that various opinions were held of the nature of extenſion; that ſome thought it neceſſarily ſolid, and even boundleſs; that others thought mere extenſion uncreated, and an attribute of the Divinity; that Locke derided the uſual definition of extenſion, B. ii. C. xiii. ſec. 15, and thought it (extenſion) as incomprehenſible as any thing belonging to the mind. B. ii. C. xxiii. ſec. 26. Leibnitz thought extenſion to be a mere phænomenon; ſome think it infinitely diviſible, others not. In the ſame manner various definitions have been given of motion, which may be ſeen in Lock[illegible] iii. C. iv. ſec. 8, 9; and Chambers, art. *Motion*. On the contrary, the nature of ſecondary qualities admits of no diſpute; it is only the diſpoſition or kind of tangible things, which are deemed their occaſional cauſes, that admits of any; for what

 diſpute

diſpute can ariſe concerning the nature of *red* or *ſweet*, hot or cold? though the occaſional cauſes of them may be variouſly explained.

653. When Berkeley ſaid, that primary and ſecondary qualities ſtood on the ſame footing, he meant no more than that they were equally ſenſations; that is, were known by the mediation of the ſenſes, which cannot be denied. Whether diſputes aroſe concerning their nature or not, is of no conſequence, but totally foreign to his argument.

654. In oppoſition to the ſecond principle the Doctor affirms, that "all the operations of the mind, or modes of thinking, are *active*, and in all ages and languages are expreſſed by verbs of an active ſignification," 1 Reid, 23, 24; ſuch as ſeeing, hearing, &c. It ſeems, therefore, to have been the natural judgment of mankind, that the mind is active in its various ways of thinking; and, p. 103, he ſays, "there is no operation of the underſtanding, in which the mind is not in *ſome degree* active; and hence mankind have expreſſed theſe operations by active verbs." The fact, however, does not exactly correſpond with this obſervation; for if the Latins ſay *video*, they alſo ſay

intueor;

intueor; if they ſay *dono*, they alſo ſay *largior*; if the Greeks ſay ειδω; they alſo ſay Οπτομαι. So theſe modes have no connexion with the active or paſſive ſtates of the mind. Moreover, *video* is equivalent to *ſum videns*, and all active verbs may be, and are by logicians ſo conſidered. Hence, probably, the Doctor, p. 276, ſays, he diſputes not whether ſenſation may be called an operation or a feeling. Now if we are not ourſelves the operators of our ſenſations, and if matter cannot act on ſpirit, is it not evident, that our ſenſations are impreſſed upon us by the Author of our being? Or in other words, that we receive them ſolely from him? Impreſſion is merely a metaphorical expreſſion, denoting no more than we are not ourſelves the efficient cauſe of their exiſtence. The Doctor juſtly defines an impreſſion to be a change produced in ſome paſſive ſubject, by the operation of an external cauſe. We are indeed active in our attention to them, in many caſes, attention often proceeding from the will; and alſo in taking the neceſſary ſteps to procure them, as we may in various inſtances.

655. The third principle the Doctor both miſunderſtands and miſapplies: he miſunder-

ſtands

ſtands it, in confounding notions with ideas, which Berkeley called ideas of imagination, in contradiſtinction to ſenſations, which he unfortunately called ideas of ſenſe. The Doctor tells us, 1 Reid, 271, that "it is one "thing to ſay I have the ſenſation of pain, "and another to ſay I have a notion of pain. "The laſt expreſſion ſignifies no more than "that I underſtand what is meant by the "word *pain*; the firſt that I really feel pain: "but I can find no diſtinction betwixt the "notion of pain and the imagination of it;" or, indeed, between the notion of any thing elſe and the imagination of it. Here it is plain he miſapprehends Berkeley's application of the word *notion*. That great metaphyſician never denotes by it things of which we can have an idea, but ſolely things of which we can have no idea, as God and the human ſoul, which we know to exiſt, though we can form no idea of them, as they are not objects of ſenſe, of which alone ideas can be had: and to the knowledge of the ſignification of ſigns, and of abſtract or complicative words, ſee Chap. I. Conſequently the biſhop would never ſay a *notion of pain*, but only an idea of pain, or a knowledge of

pain,

pain, if treating of the knowledge which God has of it, who is incapable of feeling it. Surely the Doctor may ſay he has a notion of God or of the human ſoul, though he cannot ſay that he imagines them, or can form an imagination of them.

656. Again the Doctor miſapplies this word, when he ſays, p. 264, that if conſciouſneſs and reflexion furniſh us with notions of ſpirits, may not our ſenſes furniſh us with notions of bodies and their attributes? No; our ſenſes furniſh us with ſenſations, and it is the aggregate of theſe we call *bodies*; they furniſh us with nothing elſe; but the Doctor, by *bodies* means matter, and of this certainly we can have neither notion nor idea, ſee N° 569. The Doctor, p. 265, ſays he perceives matter *objectively*, that is, ſomething that is extended and ſolid; yet we know nothing either of extenſion or ſolidity, but merely the ſenſations ſo called; and that theſe ſenſations muſt have an external cauſe, and that matter as above defined, cannot be that cauſe, as it cannot act on ſpirit, and is in itſelf impoſſible.

657. To Dr. Reid it ſeems ſtrange, that a pious and learned Biſhop ſhould advance an

opinion

opinion ſo contrary to nature and to common ſenſe as that of the non-exiſtence of matter. And doubtleſs the cotemporaries of Copernicus thought his ſyſtem ridiculous, and contrary to common ſenſe. To the Biſhop, were he living, it would ſeem at leaſt equally ſtrange, that ſo pious and excellent a man as Dr. Reid ſhould take ſuch pains to uphold the exiſtence of a ſubſtance grounded merely on vulgar prejudices, and which was in all ages, and ſtill is, the ſtrong-hold of atheiſts and materialiſts. It is ſaid, that Dr. Clarke refuſed to undertake refuting it. General Biography, art. *Berkeley*.

CHAPTER III.

SECT. I.

OF IDEAS.

658. Ideas have commonly been underſtood in a ſenſe too vague and unlimited. Locke, B. ii. C. viii. ſec. 7, beſtows this name on whatever is the object of perception, thought, or underſtanding. This is certainly the popular ſenſe of the word, but philoſophers, more attentive to preciſion, as Berkeley, Hume, and Watſon,

Watſon, have confined the ſignification of ideas to the repreſentation of images, or copies of paſt ſenſations, and of ſenſations only. Thus, when we think of or recollect the different parts of a houſe which we have ſeen, and can mentally perceive its various apartments, ſtairs, windows, &c. we may be ſaid to have an idea of it. So we have an idea of a ſong which we heard and recollect. But ſuch mental repreſentations are much more feeble, unſteady, indiſtinct, and defective, than the original ſenſations of which they are the copies; and commonly ſo much the more feeble, as more time has intervened betwixt them and the original ſenſation.

659. The ideas of the objects of ſight are by far the moſt lively: thoſe of ſound approach them moſt in point of vigour: thoſe of ſmell and taſte are far weaker, and leſs durable: thoſe of touch are ſtill more feeble, unleſs recent; after ſome time they fade away.

660. In receiving ideas, the mind is paſſive, as it is in receiving ſenſations; but as we can *occaſion* many ſenſations by removing the obſtacles to their reception, by acts of our will,

(for

(for inſtance, we can ſee objects by opening our eyelids,) ſo we can excite ideas in our minds by attention to the thoughts of objects aſſociated with them, either naturally or artificially by ſigns, as will be ſeen in the ſequel.

661. Some have cenſured Berkeley for calling ideas copies of ſenſations, as he elſewhere aſſerted, that nothing reſembled a ſenſation but another ſenſation: but it is evident the biſhop meant no more, than that nothing fully reſembled a ſenſation but another ſenſation, juſt as though nothing is in all reſpects like a man but another man; yet one may ſay, that a good picture of any man reſembles that man.

662. Ideas are either ſimple, complex, or compound.

662.[b] *Simple* ideas are thoſe which repreſent or repeat to us the ſimple ſenſation we already experienced, as the ideas of ſounds, ſmells, taſtes, heat, cold, extenſion, ſolidity, &c.

663. *Complex* ideas are thoſe that repreſent two or more perceptions of the ſame ſenſe, as colour and extenſion, by the ſight, or two or more ſenſations received by different ſenſes, but indiſſolubly aſſociated, and as it were conſolidated,

solidated, by long and uninterrupted union. Such as the ideas of colours, which are always connected with that of tangible extension, on which they appear to be spread; and sometimes with the ideas of extension, solidity, and heat; such is the idea of a red-hot iron; or that of ice, in which the ideas of cold, extension, and solidity, and sometimes of colour, are connected. In tastes also the ideas both of savour and extension are connected.

664. *Compound* ideas are those which represent various aggregates connected and denoted by one name, each of which, and also their connexion and aggregation, had previously been perceived by sense; such as houses, ships, herds, flocks, armies, or other assemblies, &c.

665. Ideas are also either original or factitious.

666. *Original* ideas are those that repeat, without any intentional variation, the sensations they represent, and in the same connexion, order, and manner; and hence those sensations are said to be *remembered* or again brought back to the mind; but the faculty of memory extends much further than to sensa-

tions,

tions, for we remember notions, judgments, volitions, &c. as well as ſenſations by means of their ſigns.

667. *Factitious ideas*, commonly called ideas of imagination, are thoſe which we *form* by addition or ſubtraction of things, whoſe parts have been previouſly perceived by ſenſe, but whoſe aggregate had never been perceived. So we may form an idea of a golden mountain, though we never ſaw ſuch a mountain; but we have had ſenſations both of gold and of elevations; or we may *form* an idea of a man far above or below the uſual ſtature, or of a centaur, &c.:—or which we *acquire* by ſigns, ſuch as words or writing; thus we acquire ideas of perſons or events, countries, cities, palaces, &c. which we have never ſeen, either by the relation of others or by reading.*

668. Hence factitious ideas are either *native*, ariſing in the mind in conſequence of an act of the will, or adventitious, being acquired by communication.

669. *Original* ideas are commonly at firſt much ſtronger than the factitious, but they gradually fade away, and in ſome minds ſooner than in others; their diſappearance is

* See Edgeworth on Education, Vol. iii. p. 129. in 8vo.

at

at firſt partial but at laſt total. They are known to be original, either by their ſuperior vivacity or by their aſſociation and connexion with the chain of preceding, concomitant, or ſubſequent circumſtances. This is the ſtrongeſt proof. Thus I remember being at ſchool, and know this idea to be original and not factitious, from its unconſtrained connexion with the idea of the place where I lived, the books I read, the maſter who taught me, and many of my ſchool companions, &c. When original ideas have faded away to a certain degree, and are weakly aſſociated with the ideas of other circumſtances, they are not eaſily or perhaps at all diſtinguiſhable from factitious ideas.

670. *Factitious* ideas may alſo be remembered; but as the ſenſations they repreſent form no link in the ſeries of real things witneſſed by the mind that formed or received them, their origin can ſcarcely be miſtaken.

671. Both original and factitious ideas excite emotions, but the original much more ſtrongly. Thus the memory of a tragic event which I have ſeen, inſpires me with more terror or compaſſion than could be excited by the bare imagination of ſuch a ſcene: fictions

which we ourſelves form, affect us leſs than thoſe which we learn from others, becauſe we are *conſcious* of the falſehood of the former; whereas, thoſe communicated to us by others, are only *believed* to be falſe.

672. Factitious ideas are ſo much the more vigorous, and the emotions they occaſion ſo much the livelier, as they are more completely accompanied with ſenſible circumſtances, ſuited to them, and the previous diſpoſition of our mind to analogous feelings. Thus theatrical repreſentations make the ſtrongeſt impreſſions when not only the voice and geſture, but alſo the age, garb, language, are ſuch as ſuit our conceptions of the original perſonages. Hence alſo the effect of theons, martial pictures exhibited after martial muſick.*

673. Even ſigns, long aſſociated with ideas or notions, ſuch as the words, whether written or ſpoken, of a language perfectly familiar to us, affect us in the ſame manner as the ideas they denote, though unaccompanied with any idea.†

* 3 Edgeworth, 162.
† See my treatiſe on Logick, Vol. I. N° 34.

SECT. II.

OF THE PROPERTIES OF SENSATIONS, IDEAS, AND NOTIONS.

674. These are, truth or falsehood, clearness or obscurity, distinctness or indistinction or confusion, adequacy or inadequacy.

¶ I. *Of Sensations, their Truth.*

675. If a sensation be deemed true, when it is such as it should be, according to the laws of nature in the given circumstances, then all sensations are true, even those of dreamers and madmen; but if we consider such sensations only as true as are conformable to the usual regular course of nature, then those only can be so regarded as are consistent therewith. But among these a further distinction must be taken; for some of them terminate in themselves, and others by an early natural association bear a reference to other sensations. To the truth of the former sort nothing more is requisite than conformity with the usual course of nature; thus, in the healthy

healthy ſtate of the organs, all odours, taſtes, and tangible ſenſations are *true*; but thoſe of the latter ſort, being ſigns of other ſenſations, muſt not only agree with the uſual regular courſe of nature in the given circumſtances, but alſo denote, with more or leſs exactneſs, the ſtate of the ſenſations of which they are the ſigns; for if they denote this ſtate, otherwiſe than the primitive aſſociation had conſtantly ſuggeſted, they muſt in that reſpect be regarded as falſe.

676. Thus viſual ſenſations being ſigns of the figure, diſtance, magnitude, and motion of tangible ſenſations, the viſual ſenſation of an oar obliquely immerſed in water, denoting its tangible ſenſation to be crooked, when in reality it is ſtraight, is falſe, though conformable to the laws of optics; for it tacitly ſuggeſts a falſehood, as plainly as words can expreſsly do, and is not grounded on a conſtant, uſual, and univerſal aſſociation.

677. But a viſual ſenſation ſuggeſting the ſhape or magnitude of a tactile ſenſation, ſo as at the ſame time to denote its diſtance, agreeably to their original and uſual aſſociation, as well as to the laws of optics, cannot be

deemed

deemed falſe, though that ſhape or magnitude be not as exactly ſuggeſted as it might be at another diſtance.

678. Hence the viſion, at a conſiderable diſtance, of a ſquare tower, without marking the angles, and conſequently apparently round, is not falſe, for it is ſuch as it ſhould be, not only according to the laws of optics, but alſo to the original aſſociation of viſual and tactile ſenſations at ſuch diſtances, which diſtance the confuſed viſual perception thus ſuggeſts.

679. And for the ſame reaſon the viſual indications of the magnitudes of the ſun and moon are not falſe, though inexact; but a judgment that their real and apparent magnitudes would be the ſame at a nearer diſtance would be inconſiſtent with the reſults of experienced aſſociations, and therefore falſe.

680. A ſenſation common to different aggregates cannot be deemed falſe, merely becauſe it does not ſuggeſt to which of them it belongs, though a judgment founded ſolely upon it would certainly be raſh, and probably falſe. Thus the ſenſation of a brilliant yellow colour being equally contained in the

aggregate called *gold*, in that called pinchbeck, and in that called mica, it cannot be deemed falſe, for not deciding to which of them it belongs.

681. Colorific ſenſations varying with the diſtance of the tangible objects to which they belong, though conformable to the laws of optics, may be deemed falſe, as the colours of tangible objects are uſually permanent.

682. Senſations ſuggeſting tangible objects to exiſt where they do not exiſt, though agreeable to the laws of optics or acouſtics, are falſe and deluſive. So thoſe preſented by a mirror ſuggeſting tangible objects behind it, are falſe. And the ſame may be ſaid of various other optical appearances.

2. *Clearneſs.*

683. *Clearneſs*, is a mode of perception literally applicable only to the ſenſations of light and colours.

684. *Light* is ſaid to be clear, when it is ſufficient for an accurate perception of colours. And colours are ſaid to be clearly perceived when their various ſhades are perceived.

685.

685. Light is susceptible of various degrees of clearness. Thus the light of the meridian sun is generally clearer than that perceived at its rise or setting, and both are clearer than that of the moon. And hence a clear light is justly called a *strong* light, and light of inferior degrees of clearness is called a *weak* light. But the difference of the degrees of clearness can only be perceived by comparison. In no case can light be properly said to be *obscure*, for that is a contradiction; what is so called is properly a *weak* light.

686. Colours participate of the clearness of the light in which they are seen. But as *black* is an obscure colour, in whatever light it is seen, with which they are frequently mixed, or to which the shades or mixtures of primitive colours frequently approach, they may in such cases be obscure, independently of the weakness of the light in which they are seen. Colours seen by a weak light should rather be said to be weakly perceived, than obscurely seen or perceived.

687. Colours of distant objects are more or less clearly perceived, in proportion to the proximity, distance, size, or minuteness of those

objects. But when brilliant they may, though extremely diſtant or minute, be clearly perceived.

688. Sounds are alſo ſaid to be clear when free from ſhrilneſs, harſhneſs, and hoarſeneſs.

689. Clearneſs is ſeldom attributed to odours, taſtes, or tactile ſenſations, though their exiſtence be certain. All ſenſations may be called obſcure when attention to them is prevented by that given to ſtronger ſenſations, or even to ideas.

3. *Diſtinctneſs.*

690. Senſations are *diſtinct* when their gradations and peculiar characters are perceived and noticed: thus colours are diſtinctly perceived, when not only their different ſenſations, as red, green, &c. but alſo the various ſhades of the ſame colour, are noticed, or the different degrees of ſweetneſs of ſugar, honey, manna, &c. The ſenſations of figures, whether viſible or tangible, are diſtinct, when the number of their ſides, angles, and curvatures, is known by ſimultaneous perceptions; for if they be ſo numerous, that their number cannot be diſtinguiſhed at once, the ſenſation of the

the figure is indiſtinct, and the knowledge acquired by ſucceſſive numeration ſhould rather be called a notion. Such is the knowledge we may have of a chiliagon, which cannot be diſtinguiſhed by mere ſight from a figure of 900 ſides.

691. Senſations are capable of various degrees of diſtinction. In the leaſt and loweſt degree are thoſe which exhibit only the moſt general of the properties of which an aggregate conſiſts; thoſe that preſent the leſs general are more diſtinct, and thoſe that preſent the individual properties are the moſt exact, preciſe, and diſtinct. Thus if I ſee upon land a white colour at a diſtance, I immediately aſſociate it with extenſion, and call it a white object; but whether it be a white ſtone or a white animal I cannot diſtinguiſh, as whiteneſs is common to both; and in this reſpect the ſenſation is indiſtinct, vague, and indeterminate, though ſufficiently diſtinct from red, green, or other coloured objects. On approaching nearer, I perceive the diſtinguiſhing characters of an animal, but not thoſe of the ſpecies of animal; on approaching ſtill nearer, I perceive it to be a ſheep, conſequently

my ſenſation is more diſtinct; but it is capable of becoming ſtill more diſtinct and determinate, for a ſhepherd might point out the peculiar characters of that particular ſheep.

692. An aſſemblage of ſenſations is ſaid to be confuſed, when they are irregularly intermixed or jumbled together, as the colours on a painter's board, and various taſtes and ſmells.

693. Thus a ſenſation is clear when we have no doubt of its perception, but it is diſtinct and determinate only when we notice its diſcriminating characters. See ante, N° 385.

¶ II. *Of Ideas; and, firſt, of their Truth.*

694. As all ideas are copies of ſenſations, their *truth* cannot conſiſt in that ſingle character, otherwiſe all would be true, which is abſurd; for if ſo, the factitious anthropomorphic idea of God ſhould be deemed true: a true idea then is that which repreſents exactly that peculiar object whoſe name it bears, and which is conſequently ſuppoſed to be that whoſe repreſentation is intended. Hence a picture would be called falſe if it bore the

name

name of Charles the First, but resembled Oliver Cromwell.

2. *Clearness.*

695. The clearness of an idea consists in its more or less resemblance to the sensation or aggregate of sensations of which it is the copy, and it is said to be *obscure* when it fails to represent some important feature of its original; thus I have a clear idea of a man whom I have seen, when I recollect his size, corpulence, and the features of his face; but my idea of him is obscure when I recollect only one or two of these particulars: hence there are various degrees of obscurity.

696. Factitious ideas are seldom so clear as original ideas, except in consequence of some disorder.

3. *Distinctness.*

697. Ideas are *distinct* when they so exactly copy the sensations they represent, that they may be distinguished from the idea of any other sensation. Hence, distinctness of an idea consists in the utmost degree of clearness

with which it expresses the sensation it copies; and consequently it may be distinct, though the sensation it represents be indistinct; but it must be indeterminate, when the sensation it copies is indeterminate.

4. *Adequacy.*

698. An adequate idea, is that which exhibits such a number of the characters of an aggregate, as is sufficient for the deduction of certain of its unperceived properties, by reflecting on their relations to each other; thus, the idea of a right-angled triangle, is sufficient for the detection of its properties. So the compound idea of the external character of a mineral, is adequate, or sufficient, to the discovery of the properties commonly connected with those characters, and thus its class, genus, and species, and consequently the name it should bear, and to which the knowledge of many of its properties is annexed, is determined.

5. *Positive.*

699. Since all sensations are *positive*, being modifications that exist or have existed, so all

ideas

ideas being copies of ſuch ſenſations, or aggregates, muſt be poſitive, and none can be negative. The idea of a ſhadow is not a negative idea, but rather the idea of a circumſcribing illumined ſpace, ſuggeſting the diſtance of its parts from each other without any perception of an intervening colour. Perfect blackneſs cannot be otherwiſe perceived. Darkneſs cannot properly be ſaid to be perceived ; it is rather a want of the perception of light, whoſe preſence is denied, becauſe it is not perceived. Hence ſuch words denoting negative judgments, ſignify notions rather than ideas.

6. *Poſſible.*

700. Neither can we have any idea but of things poſſible, for as things impoſſible exclude each other, a ſenſation of them cannot be had; for inſtance of a ſquare circle, or of a being that is both a man and a horſe. It has been ſaid, that ſince we deny the poſſibility of ſuch things, we muſt conceive them, otherwiſe we ſhould deny what we are ignorant of; but this is a miſtake; we indeed conceive or have an idea of each thing ſeparately, for ſo conſidered they are poſſible, but

we deny their union, because we discern their incompatibility. Yet the mind may perceive at the same time sensations repugnant to each other, as already said, N° 389, when they affect different combinations of that aggregate of sensations which constitutes the human body.

¶ III. *Notion.*

Truth.

701. A *true* notion, is that which reason, moral instinct, and the received signification of the word to which it is annexed, demands: this last standard however is not always just; it is so only when not contrary to the two first. Thus the true notion of *religion* being, that it is a system of true tenets, and of practices most agreeable to the Supreme Being, the notion annexed to that word by heathens was false, as they supposed it to consist merely in sacrifices, festivals, and ceremonies, and admitted a plurality of objects of worship.

Clearness.

702. Notions are *clear* when a true and intelligible definition of them can be assigned, even though in many cases incomplete: thus

we may have a clear notion of the Supreme Being, though we are ignorant of his effence and of many of his properties and attributes; fuch alfo is our notion of the human foul, though we are unacquainted with its effence, and many of its properties: fo alfo we may have a clear notion of a triangle, without knowing whether it be an equilateral, an ifofceles, or a fcalenum, for we can define it: fo alfo we may have a clear notion of an animal or of a metal without difcriminating any: fo alfo we may clearly underftand what is meant by complex notions, fuch as *government*, *religion*, &c. without thinking of any in particular.

Diftinctnefs.

703. A diftinct notion differs from a clear notion only in being more determinate and precife, marking the peculiar circumftances by which a notion differs from other notions that border upon it; as that of avarice from that of frugality, of liberality from prodigality, religion from fuperftition, liberty from licentioufnefs, murder from manflaughter, &c.: we may have a diftinct notion of a large number,

ber, as 100,000, though not a diftinct idea even of 20, but only know it by numeration, becaufe we have an idea of the decimal places which indicate thofe high numbers.

Adequacy.

704. An *adequate* notion is fuch a knowledge of a fubject as enables us to judge of its truth or falfehood, of its propriety or impropriety. Thus our notion of human juftice is fufficiently clear to enable us to decide how far an action, whofe circumftances are known agrees or difagrees with it. But our knowledge of a fact may be fo imperfect, that its known proofs or circumftances may be inadequate to the eftablifhment of any certain decifion refpecting it.

But our notion of Divine Providence is not fufficient to enable us to difcern its wifdom and juftice in many cafes which it either ordains or permits; as the grounds on which it acts, and the views which it propofes, (frequently very diftant, but which the Divine power can realize,) are neceffarily unknown to us; though we are certain, *a priori*, of the fuitablenefs of all fuch events to the occafion,

and

and of their exact conformity to the rules of juſtice.

Abſolute, Relative, Poſitive, Negative.

705. *Abſolute* notions are thoſe which we have of things *directly* underſtood, without any reference to any thing elſe: ſuch as our notions of intelligence and knowledge, love and hatred, ſuch as they exiſt among men.

706. *Relative* notions are ſuch as we have of things not directly, but by their relation to ſomething elſe which is directly known: thus the above-mentioned properties, when aſcribed to the Divinity, are underſtood only by their analogy to the ſenſe they bear when aſcribed to human beings; which analogy conſiſts in the general ſimilitude of their effects, and not in their modes of exiſtence.

707. All abſolute notions are *poſitive*, as they concern things either exiſting, or at leaſt poſſible.

708. But of relative notions, ſome are *negative*, as they include a denial of ſomething poſitive; ſuch as *darkneſs*, the denial or abſence of light; *ignorance*, the denial of know-

 ledge;

ledge; *immenſity*, a magnitude to which bounds are denied, &c. In the two laſt caſes a ſubject is referred to, to which ſomething is denied; as knowledge, to a being capable of poſſeſſing it, bounds to magnitude, and many others; theſe are called *privative* notions. The word *nothing* denotes denial of all beings; but as two negatives are equivalent to an affirmative, when we ſay *nothing is impoſſible to God,* the meaning is *all things are poſſible to God.* So if we ſay *darkneſs is inconvenient,* this is equivalent to ſay *light is convenient.* But ſuch converſions are not abſolutely neceſſary; for ſuch privations may be conſidered as ſtates, and ſuch ſtates may be conſidered as inconvenient, &c.

Impoſſible.

709. We have a notion of impoſſibility in this ſenſe, that we know the ſignification of that word, but we cannot have a notion of things *known* to be impoſſible, for ſuch things are unintelligible, involving a contradiction; yet we may underſtand the ſeparate words or ſeparate branches of a propoſition that convey

that impoſſible ſenſe; that is, the ſubject and attribute; becauſe ſuch a propoſition either affirms the union of things that exclude or contradict each other, or the diſunion of things that cannot be ſeparated; as their ſeparation would involve a contradiction, or at leaſt be unintelligible. But this impoſſibility is diſcerned, otherwiſe it could not be affirmed, and in this ſenſe alſo we may be ſaid to have a notion of it.

710. One may alſo have a notion of an object *really* impoſſible, when its impoſſibility is not diſcerned, and conſequently not apparent to the perſon who entertains it. This often happens in complex and complicative notions, when one of the notions that enters into the complexity is falſe; as the notion of a *cruel God*, entertained by the Manicheans; of a *corporeal God*, held by the Anthropomorphites: the notion of God entertained by both was falſe, and hence they did not diſcern the incompatibility of thoſe attributes. Such alſo is the notion of extended ſolid matter, held by the hyoliſts; and of a material ſoul, held by the materialiſts; to ſay nothing of other

 falſe

falſe tenets, ſuppoſed to be grounded on reve-lation.

Comprehenſive.

711. A comprehenſive notion is a know-ledge of all the properties of an object.

CHAPTER IV.

SECT. I.

ABSTRACTION.

712. Metaphyſical abſtraction, is the mental ſeparation from each other, of things which cannot exiſt but in a ſtate of union; or of thoſe ſtates, modes, qualities, or properties, which, being equally obſervable in many diſtinct or different objects, and therefore ſaid to be common to them, from all thoſe objects in which they are obſerved, or to which they are aſcribed; or of objects capable of many varieties, from all of thoſe varieties, retaining only what is common to them all.

713. Thus, when we ſee an object extended, coloured, and moved, it is plain that neither

neither colour nor motion can exiſt ſeparately from extenſion. And, ſecondly, if two or more objects are perceived to reſemble each other in colour, magnitude, or other properties, which are therefore ſaid to be common to them; or, in other words, of which they are ſaid to participate, it is evident that none of theſe properties can exiſt ſeparately from all the objects to which they are common.

714. Thirdly, though extenſion be ſuſceptible of indefinite variety, both in length, depth, and breadth, yet it cannot exiſt but under ſome or other of thoſe modifications, and not independently of all of them. The ſame may be ſaid of figure, colour, and motion, as their reſpective varieties.

715. Now as the exiſtence of all ſenſible objects conſiſts in their being perceived by ſenſe, it is plain that ſuch of them as cannot exiſt ſeparately from each other, cannot be perceived by ſenſe ſeparately from each other; or, in other words, do not admit of ſeparate ſenſations; conſequently, ſince ideas are copies of ſenſations, neither can ſeparate, that is abſtract, ideas of ſuch bodies exiſt.

716. Therefore, we can have no idea of

colour abſtracted from extenſion, on which it ſeems to be ſpread; nor of a colour or magnitude, &c. common to different objects, abſtracted from all thoſe objects; nor of colour, figure, or magnitude in general, abſtracted from and excluding all their reſpective varieties: thus we cannot have an idea of a colour that is neither red, white, yellow, &c. or ſome ſhade or mixture of theſe; nor of a triangle, which has no precise proportion of ſides or angles, being neither right-angled, iſoſceles, or ſcalenum.

717. Yet an idea may be *indeterminate*, becauſe the idea it copies may be indeterminate, ſee N° 691. and 697. Neither the idea nor the ſenſation are abſtract; they are imperfect and defective, but not excluſive.

718. Thus abſtract ideas are impoſſible in every caſe.

719. But though we cannot have abſtract ideas, yet we may have *abſtract notions*, becauſe we may attend to ſome one quality, property, modification, or attribute, of an object, without attending to any other; and notions are not repreſentations, but mere definitions or indications of the objects of our

conſideration.

consideration. Thus, though colour cannot exist or be represented separately from extension, yet it can be considered without any attention to extension: thus the properties of different colours may be explained without any attention to the extension on which they appear; and in the same manner we may consider the properties, qualities, modes, or attributes, common to various objects, without any attention to the other modes or properties, &c. of those objects, or to any of the various objects to which those modes, properties, qualities, &c. belong: thus, for instance, we may measure the length of a road, without attending to its breadth; or the dimensions of a field, without attending to its soil, whether grassy, rocky, moor, or morass, though we cannot avoid perceiving these peculiar circumstances: thus abstract notions serve every purpose for which abstract ideas were thought necessary.

SECT. II.

GENERALIZATION.

To generalize an object is to make it either the representative or the sign of many particular objects.

720. Thus, as an inſtance of generalization by repreſentation, a line, though but an inch long, may repreſent lines of any length, as it does when a method is given of cutting it into two equal parts; for whatever is demonſtrated concerning it is equally true of all other lines; or, in other words, of lines in general, let their length be what it may, as its length is no way concerned in the demonſtration. So a particular triangle, for inſtance an iſoſceles, may repreſent all ſorts of triangles, as to thoſe properties that are common to all of them; thus it may ſerve for the demonſtration, that the three angles of all right-lined triangles are equal to two right angles, becauſe neither the length of the ſides, nor the ſpecies of angles they form, are at all concerned in the demonſtration; and thus the picture of an animal repreſents, as to their ſpecific appearance, all animals of the ſame ſpecies.

721. So ideas may be reckoned general, when they are indeterminate; thus a groan, or laughter, or a word uttered, will ſuggeſt the idea of a man; which idea will not, in

many cafes, reprefent exclufively any determinate individual, but any at pleafure.

722. It has been objected, "that if in the "triangle we have in view, we do not dif-"tinguifh what is common to all triangles "from what is not, it would be impoffible to "difcern whether fomething that is not com-"mon be concerned in the demonftration." Which is plainly a miftake; one need know no more of triangles than that they are bounded by three right lines: this being their definition, muft be applicable to all of them; one need not notice the diftinctions of triangles, as the demonftration evidently requires none of them in particular, and confequently extends to all of them, fince they are all equally triangles.

723. Thus a demonftration always refts on a general truth, and not on a mere induction of particulars; for a truth is general when it extends to numerous other cafes befides that from which it was deduced; and it always does fo, when the effential circumftances being the fame, the peculiarities attending each particular cafe do not affect it.

724. But the objects moft capable of universal

verſal generalization are *words*; and as theſe do not repreſent any object, but are conſtituted its ſigns by thoſe who uſe them, they are ſaid to *ſignify* it.

725. Words, when uſed as *ſubſtantives*, can denote all claſſes of beings: thus, the word *animal* ſignifies all ſpecies of animals, whether men or brutes, and alſo the individuals comprehended under all thoſe ſpecies, and conſequently the ſubordinate genera, as quadrupeds, birds, fiſh, and inſects; ſo alſo they may denote claſſes of inanimate objects, that in many reſpects reſemble each other, as houſes, cities, villages, rivers, mountains, trees, &c.: which words denoting equally and immediately ſuch numerous objects, are therefore called *apellatives*. They may alſo denote the peculiar character or eſſence of various genera or ſpecies, as *animality*, or *human nature*; the *Godhead*, or *divine nature*, &c.: and when uſed as *adjectives*, they may denote generic or ſpecific properties, as *animal* functions, *human* actions, &c.: or general or ſubordinate denominations, as *European*, *German*, *Auſtrian*, *Saxon*, &c.

726. Not only ſingle words, but propoſitions formed of them, become general, when

no

no peculiar circumſtance, limitting them to a particular caſe or object, or ariſing from the nature of things, is contained in them; ſee Log. N° 89 and 90, &c. Thus, when it is ſaid, that *whatever has extenſion is diviſible*, this is meant of extenſion in general, of which we have a notion, ſince it means no more than *all extended things*, without particulariſing either wood, ſtone, metal, &c. or admitting any exception.

727. In the ſame manner written characters, or arithmetical and algebraic ſigns, denote general words, not only in one language, but different yet equivalent words in different languages; thus 5 denotes *five* in Engliſh, *cinque* in French, *quinque* in Latin, *pente* in Greek, &c. Of this ſort alſo are the Chineſe characters, to which different yet equivalent words are ſaid to be annexed in the Chineſe, Japaneſe, Tonquineſe, and Siameſe languages.

728. All ſciences, as far as they are univerſal and demonſtrable by human reaſon, will we found converſant about *ſigns*, whether vocal or technical, as their immediate objects; though theſe, in their application, are referred to *things*; for, as the mind is better acquainted

quainted with ſome ſorts of objects, which are earlier ſuggeſted to it, ſtrike it more ſenſibly, or are more eaſily comprehended than others, it is naturally led to ſubſtitute theſe objects, for ſuch as are more ſubtle, fleeting, or difficult to conceive; now it is certain we imagine before we reflect, and we perceive by ſenſe, before we imagine; and of all our ſenſes, the ſight is the moſt clear, diſtinct, various, agreeable, and comprehenſive; hence it is natural to aſſiſt the intellect by the imagination, the imagination by ſenſe, and the other ſenſes by ſight; hence figures, metaphors, and types; we illuſtrate ſpiritual things by corporeal, we ſubſtitute ſounds for thoughts, aud written characters for ſounds.*

SECT. III.

OF CONSIOUSNESS AND ATTENTION.

729. Every perception and mental operation neceſſarily implies a percipient and acting

* Berkeley's Min. Philoſ. Dialog. 7th. ſec. 16. on the ſubjects of abſtraction and generalization. See 2d Campbell Phil. of Rheth. 92, &c. and Stewart on the Mind, 188, &c.

ing ſubſtance, to which its perceptions or actions are known. Now this notice of a perception or action, by the ſubſtance that perceives or acts, is what is called *conſciouſneſs*.

730. A perception or action may then be conſidered, either with regard to the thing perceived or acted, or elſe with regard to the ſubſtance itſelf that perceives or acts, and which being a living ſubſtanc neceſſarily knows that it perceives while it perceives, and acts while it acts. This double conception is what, in the ſchools, is called objective and ſubjective: thus, a medal or coin may be conſidered as to what it repreſents, or as to the particular metal it conſiſts of.

731. Conſciouſneſs, then, is not a perception different from the perceptions of which the mind is conſcious, as ſome have erroneouſly thought, but identically the ſame.

732. As ſenſations may be impreſſed with different degrees of intenſity, (N° 388) and ideas with different degrees of vivacity, (N° 669,) ſo alſo may emotions and all mental operations; ſo their conſciouſneſs, or rather that which the mind has of them, muſt be ſuſceptible of different correſponding degrees of

of vigour; it may even be so feeble as to be nearly evanescent: thus, the consciousness of our closing our eyes in winking is so feeble, that without reflexion we should scarcely believe, that while it lasts we are in the dark, and even for some seconds in a minute; and such is the consciousness of our ideas during a sound sleep.

733. *Attention* is a lively continued notice taken of the objects of our sensations, ideas, notions, emotions, or of any mental operations or series of objects. Thus, if I take a general undistinguishing view of a flower garden, the notice I take of each flower (and some I must take, if I see it) is so slight and superficial, that if I be asked a moment after, whether I saw a tulip, I may not be able to remember whether I did or not: but if I single out any flower in particular, and view it for a few seconds without interruption, or thinking of any thing else, I am then said to *attend* to it.

734. The notice taken of the objects, of ideas, notions, &c. is also called *consideration*, or reflexion; and if continued and uninterrupted, an *attentive consideration*.

735. Attention to numerous or extensive visual sensations or ideas, is properly called *contemplation*;

contemplation; ſuch as a general but uninterrupted view of a flower garden, of the ſea, or of the heavens: ſo we may be ſaid to contemplate the cauſes of the riſe or fall of empires, &c.

736. But a continued perception is not always neceſſary to attention: a ſudden lively ſenſation, though inſtantaneous, and particularly if accompanied with pleaſure, pain, or ſurpriſe, or other ſtrong emotion, will attract all the notice the ſoul is capable of: for inſtance, a ſudden flaſh of lightning; a wound or hurt attended with much pain; or exquiſitely agreeable or odious taſtes, ſounds, or ſmells; violent emotions of joy, grief, anger, fear, &c. or deep remorſe.

737. Attention is generally voluntary, and conſequently requires an act of the will; but it ſometimes is involuntary and forced; ſuch is that extorted by exquiſite pleaſure or pain, or ſudden lively ſenſations.

738. It is alſo capable of various degrees, from the ſlighteſt to the moſt intenſe, in which the faculties of the mind are wholly abſorbed; ſuch was that of Archimedes, who was ſo attentive to a mathematical ſpeculation,

and inattentive to every thing elſe, as not to heed the buſtle of a town taken by aſſault, nor even the burſting open of his door by a ſavage ſoldier; not but he muſt have perceived it, but his perception was ſo feeble as to excite no notice.

739. Attention to one object diminiſhes, in proportion to its degree, attention to every other object, and hence ſtrong attention to two objects is more difficult than to one; the difficulty increaſes with the number of objects, and thus it is always ſo much the more feeble as it is more divided; yet if the objects be very ſimple, ſuch as the ſounds and characters that form words or muſical notes, by long and early habit they become ſo familiar, that the ſlighteſt attention to them is ſufficient to ſuggeſt their prototypes with the greateſt facility and rapidity.

740. Attention to notions is more difficult than attention to ideas, and attention to ideas is more difficult than that given to ſenſations, or emotions.

741. Attention to ſenſations is ſo much the ſtronger, as they are more lively and impreſſive: thus a ſtrong ſenſation or lively idea diminiſhes attention to the more feeble; but ideas

ideas may be ſo lively, as to diminiſh attention even to ſenſations, and ſo may alſo emotions and paſſions, as thoſe of ſhame, anger, love, pride, &c.

742. The power of beſtowing attention is very different in different minds, and to all it is much eaſier to give it to ſome objects than to others; it may be excited in almoſt any minds by ſtrong motives, or motives that, from a peculiarity of conſtitution, appear to them particularly gratifying or alluring, as a paſſion for particular ſtudies.

743. Attention to ſuch facts as nature preſents to us, without our aſſiſtance, is called *obſervation*; but the facts which nature preſents to us, in ſituations which we ourſelves have prepared, are called *experiments:* cloſe attention to paſt facts, their expected conſequences, or to deſigns expected to be effected, is called *meditation:* that paid to our paſt ſenſations, or to *our own* ideas, notions, or mental operations, is called *reflexion*.

SECT. IV.

OF THE ASSOCIATION AND CONNEXION OF IDEAS, NOTIONS, AND MEMORY.

744. Ideas, notions, emotions, and paſſions, are partly aſſociated and partly connected with each other; I call them *aſſociated* when they accompany or border on each other, and *connected* when they frequently ſuggeſt or follow each other.

745. In nature, ſenſations of any given kind are ſcarce ever ſingle; they are uſually accompanied or immediately preceded or followed by various ſenſations, which are thence called their *circumſtances*. Of theſe, ſome are *neceſſary*, as thoſe of time and place; and ſome are *accidental*, as the different events that accompanied or immediately preceded or followed: thus the death of Cæſar happened on the ides of March, and in the ſenate houſe, and was immediately preceded and followed by other events, of which hiſtorians give a minute account.

746. Hence ideas, being copies of sensations, are associated with the same train of ideal circumstances.

747. So also, as a sensation is often followed by another of which the preceding is deemed to be the *cause*, in the same manner the idea of the preceding sensation will immediately be followed by that of the effect. But the reverse does not always happen, as the same effect may be produced by different causes; thus, as death may proceed from various causes, none of them in particular is suggested by its idea, unless the cause of it was also perceived by sense.

748. Again, as numerous sensations are more easily observed, when presented in a certain *order*, than when they are perceived in a confused irregular manner, in the same manner their ideas present themselves in the same order, and difficultly in any other.

749. Further, as an artificial association is frequently formed betwixt two sensible objects, so that the perception of the one suggests that of the other, and thus becomes its *sign*, the same association is formed betwixt the idea of the *sign*, and that of the thing

 signified;

ſignified; but the reverſe does not eaſily take place; for, as the ſign was inſtituted for the ſake of ſuggeſting the thing ſignified, not the reverſe, more attention was originally paid to it in that relation, but much leſs in the converſe relation; thus a word, or even its idea, more eaſily ſuggeſts the object it denotes, or its idea, than the object or its idea ſuggeſts the word proper to denote that object; and hence we oftener forget names than the perſons or things they denote.

750. In the foregoing caſes, the aſſociation of ideas is grounded on the relation of *contiguity*, that is, vicinity in time or place, that of *cauſation*, that of *order*, and that of *ſignification*.

751. In the following inſtances ideas ſeem rather to be connected than aſſociated in the ſtrict ſenſe of the word, and more or leſs effort is neceſſary to form the connexion.

752. And, firſt, as the ſight of different objects does, after ſome attention, occaſion the notice of the properties, qualities, or other points, in which they agree, and of thoſe in which they diſagree; ſo does meditation on their ideas: it is the notice thus taken that

leads

leads us to assign generic, specific, or general names to various objects, and on it all classification is founded. Here then the connexion is founded on the *relation* of similitude; it is this principle also that suggests metaphors and allegories.

753. This similarity is sometimes very remote, being traced not from any sensible appearance of objects, but from analogous effects, similar relations or consequences: thus a connexion is discovered betwixt winter and old age, and betwixt spring and youth, betwixt darkness and ignorance, betwixt the head of an animal and the governor of a society: the invention of such connexion not being obvious, is called *ingenuity*: it is also applicable to the discovery of some difference betwixt objects that appear exceeding similar.

754. As in nature opposite sensations of heat and cold, light and darkness, &c. constantly succeed each other, so one idea frequently suggests its opposite, and they thus become connected.

755. The relations therefore on which the connexion of ideas is founded, are those of *similarity*, *analogy*, and *opposition*.

756. It may alſo be remarked, that ſenſations are often much more ſtrongly aſſociated with ideas, than ideas can be with each other; thus, being on the ſpot on which great events have happened, brings them to our recollection much more powerfully than the mere idea of ſuch places can. Many beautiful inſtances of this kind of connexion occur in Profeſſor Stewart's Philoſophy of the Mind, p. 279.*

757. Upon the experience of a conſtant connexion between certain objects, is founded the expectation that *ſimilar objects, placed in ſimilar circumſtances, will always be attended with ſimilar reſults*; but this principle is ſtrictly applicable only to natural events, which are governed by general laws, and not abſolutely and peremptorily to the actions of free agents; for experience, or rather hiſtory, teaches us, that theſe in ſome, (indeed uncommon inſtances) may be widely different from thoſe which are uſually obſerved to take place in ſimilar caſes: how many ſovereigns have been in circumſtances ſimilar to thoſe in which Diocleſian, Charles the Fifth, and Victor Amadeus, found themſelves; yet how few

* Octavo edit.

like

like them have abdicated their power! And to pass over numerous other examples of the strict inapplicability of this principle to the investigation of human actions, in which probability alone can be expected, in applying it even to inanimate objects, their similarity to those whose effects have been already experienced, and also that of their circumstances, must be exactly known, before a well-grounded expectation of similar effects can be rationally entertained.

758. Hence also the firmness with which notions and opinions received and impressed by early education are adhered to; for men having, from their earliest infancy, observed the succession of natural events to have corresponded with the predictions of those by whom they were educated, naturally infer their sentiments and opinions on other subjects to be equally conformable to truth: their attachment to them is still further strengthened by the love and reverence they bear to those from whom they received them.

759. *Memory*, considered as a faculty of the mind, is the capacity of recovering, though more or less enfeebled, those states by which it

it was antecedently modified, or their signs, together with an instinctive persuasion of their preceding existence. The states thus recovered are said to be remembered.

760. I call it a *capacity*, because it is not a power *directly* possessed and exerted by the mind of recovering those states, this being an act of Divine Agency, as much as their original formation; and indeed it were a contradiction that it were otherwise, for then we should form the memory of an object, before we remembered it; but having the slightest hint of the object endeavoured to be remembered, the mind may, by an attentive consideration, research, and scrutiny, of associated circumstances or connexions, often obtain a more perfect recollection.

761. The persuasion of the anterior existence of these states is derived from three signs, of which the two first are instinctively known to be such; these are, first, the vivacity with which these states, or their signs, reappear: secondly, their ready, free, and unconstrained association with circumstances, also more vigorously impressed on the mind, than if they had been barely imagined: thirdly,

their

their connexion with consequences, either necessarily or probably resulting from the pre-existence of those states only, and not from any other cause.

762. The sensations received from the sight or hearing, are almost the only states of which the ideas can be fully recovered, at least after a long interval. The ideas of taste or smell are little more than instantaneous; the ideas of rough and smooth are more durable; but the sensations of heat or cold, hunger or thirst, or other sufferings, cannot be expressly recovered; their existence can only be traced from their signs, associated circumstances, and resulting consequences: thus also the knowledge of pre-existing notions is revived, and also the discernment of relations, judgments, argumentations, volitions, emotions, or passions previously had.

763. Signs are either natural, as sighs, groans, &c.; or conventional, as words, whether spoken or written; and as these are either vocal or visible, they are most easily remembered, and through them the things they signify.

764. Memory may be considered in a double point of view; either as the *capacity* of receiving

ceiving ideas or their ſigns, as already ſaid; or as the *facility* of recollecting them: this however requires the concurrence of the will, at leaſt in common caſes, for certain ſtrong emotions, ſuch as thoſe of grief, anger, and remorſe, may even unwillingly be renewed. Both the capacity of receiving, and the power of recollecting ideas, are poſſeſſed by different minds in degrees aſtoniſhingly different.

765. That memory is ſome how connected with organization, that is a peculiar arrangement of obſcure ſenſations, is certain, from its general decay in old age, and in conſequence of various diſorders by which ſome of thoſe obſcure ſenſations are effaced, but the mode of connexion is perfectly unknown. See 1 Crichton, 358.

766. *Imagination* is the power of compounding, curtailing, and arranging ideas, and of combining the ſigns, whether of ideas or of other mental operations, in an intelligible manner, different from the arrangement, according to which ſenſations, of which they are the copies, were originally impreſſed; and in this it differs from memory.

767. I call it a *power*, becauſe it commonly includes an act of the will; yet its repreſen-

tations

tations ſometimes ariſe involuntarily, by reaſon of ſome early aſſociation, or fear, &c. as when ſpectres or other frightful objects are imagined in the dark.

768. The only ideas which the imagination can command, are thoſe of viſible or audible objects; of other ſenſations it can preſent only their ſigns, which are themſelves viſible or audible; yet theſe ſigns affect us nearly, if not fully, as much, as the ideas of the objects they ſignify could: this muſt be evident to any one who conſiders the words, *fragrant*, *bitter*, *ſweet*, *ſour*, *ſharp*, *blunt*, *hot*, *cold*, *painful*; nay even the ideas of viſible or audible objects are not always neceſſary; their ſigns, when we are long accuſtomed to their connexion with the things ſignified, are fully ſufficient; for, from long experience of their intimate aſſociation, their effects on the imagination become identified; thus money, though merely a *ſign*, is as much coveted as the things it can purchaſe or procure, though it ſuggeſts none of them in particular; Mr. Locke juſtly obſerves, that we frequently think by words and not by ideas.

SECT.

SECT. V.

OF SIMPLE APPREHENSION, CONCEPTION, AND COMPREHENSION.

769. *Simple apprehension* was a term anciently used by the scholastics to denote the mere idea of a sensible object, without affirming or denying any thing concerning it: it was never applied to fictions of imagination, and but seldom to *notions*, which they called *intellections*. See Pourchot, Log. 46.

770. *Conception* anciently, at least for the most part, denoted an *idea generalized*; thus the nominalists called the idea of a circle, when representing all circles, the conception of a circle, from *cum et capere*; but at present it is taken for an *idea*, or *intellection*; thus professor Stewart calls it an exact transcript of what we have felt or perceived; Phil. of the Mind, p. 135. And by *intellection* I mean a knowledge of the signification of signs, such as words or propositions, or the meaning of notions; as when I say I conceive *God* to be a necessary being; I conceive *virtue* to consist in conformity to his will; I conceive the meaning of the word *chilihædron*,

chilihædron, but can form no idea of it; that is, I underſtand the meaning of the word *God* to be, that he is a neceſſary being; and that of the word virtue to be conformity to his will. When we ſpeak of conceiving or underſtanding a *general propoſition*, we mean nothing more, (as Mr. Stewart juſtly obſerves, p. 196,) than that we have a conviction that we have it in our power to ſubſtitute, inſtead of the general terms, ſome one of the individual inſtances comprehended under them.

771. To *comprehend*, is frequently taken in the ſame ſenſe as to conceive or underſtand, but, as I think, improperly, except when it is uſed to denote underſtanding a ſeries of propoſitions. In *logic*, it denotes all that a term, particularly a general term, can ſignify: thus the term animal comprehends all animals.* In *metaphyſics*, it denotes the knowledge of all the properties of an object.

* 5 Pourchot, 10. 269. 1 Pourchot, 60. Segui Log. 81, 82. 111.

CHAP-

CHAPTER V.

OF THE SIGNIFICATION OF TERMS DENOTING INTELLECTUAL ABILITIES AND DISABILITIES.

SECT. I.

OF INTELLECTUAL ABILITIES.

772. *Underſtanding* is the general name given to the intelligence of notions, and alſo to the power of receiving ideas, and of imagining, attending, comparing, reflecting, judging, and reaſoning. Senſations alſo, as being the original ſtamina of thought, are referred to this faculty. To *underſtand* a *ſign*, for inſtance a word, is to be aware of, or acquainted with its ſignification. Locke defines the underſtanding to be the faculty of thinking.

773. *Knowledge* of a *ſpeculative object* conſiſts in having ſuch an idea or notion of it as enables us to diſtinguiſh it: knowledge of a *fact* conſiſts in a well-grounded perſuaſion of its exiſtence; thus if I were aſked whether ſuch a city as Rome had exiſted, or whether God exiſts,

exifts, were it not ridiculous to fay, I did *not know*, but barely *believed* it? See N° 829.

774. *Thought* denotes every ftate of the mind referable to the underftanding, except fenfations; for furely feeing, fmelling, tafteing, &c. are not thoughts, but perceptions.

Perception is a term applicable to all the paffive ftates of the mind.

775. *Difcernment* is the difcovery of a relation betwixt objects compared with each other.

776. Intellectual abilities relate either to the underftanding, or to the imagination, or to memory.

777. Thofe that relate to the underftanding are genius, penetration, folidity, depth, fagacity, fubtlety, perfpicuity, and power of illuftration. All evidently refer to the difcovery of truth, and fome to the detection of falfehood.

778. *Genius* denotes an uncommon power of difcovering abftrufe and important truths.

779. *Penetration* indicates the power of tracing and difcriminating the characteriftic ingredients of complex and complicative notions, and the truth, folidity, or defects, of

abftrufe

abſtruſe or plauſible reaſoning: it differs little from ſagacity.

780. A *ſolid underſtanding*, is that which, by cautiouſly diſtinguiſhing certainty from probability, the degrees of probability from each other, and both from uncertainty, mere poſſibility or falſehood, is not eaſily impoſed upon.

781. A *ſolid argument*, is that whoſe truth is not doubtful, or at leaſt not expoſed to any well-grounded doubt.

782. A *ſolid reaſoning* is that which conſiſts of ſolid arguments, duly connected.

783. *Depth of underſtanding* conſiſts in an accurate and diſtinct knowledge of the numerous notions or ideas contained in or connected with any ſubject.

784. *Sagacity* conſiſts in diſcovering cauſes when obſcure, (ſee an inſtance in Grotius's Preface to the Firſt Epiſtle of John, p. 1126;) or diſcovering relations where none are apparent, or the moſt ſuitable interpretations where the ſenſe is ambiguous; by *ſuitable*, I mean conformable to the occaſion and context, and not contradicting any other known truth; from *ſaga*, or *ſagax*, quick ſcenting.

785. *Subtlety* denotes the power of ſraming obſervations, deducing conſequences or inventing arguments not obvious: it is frequently too refined to be ſolid, or too abſtruſe to be clearly intelligible.

786. *Perſpicuity* conſiſts in explaining and treating any ſubject in terms clearly intelligible, unambiguous, and appropriate.

787. The *talent of illuſtration* is that of rendering a ſubject more diſtinctly intelligible by apt ſimilitudes, or examples.

778. The abilities that relate to the imagination, are genius, talents, wit, acuteneſs, and taſte:

789. *Genius* conſiſts in the enthuſiaſtic power of faſcinating the imagination, by ſublime or beautiful imagery, and exciting the ſtrongeſt emotions: its moſt powerful effects are produced by the union of poetry and muſic.*

790. *Talents* for the fine arts conſiſt in powers of the ſame nature, but poſſeſſed in a more temperate and inferior degree.

791. *Wit* conſiſts in diſcovering unexpected

* 4 Voltaire, Dict. Philo. 22.

pected relations of similitude betwixt objects obviously dissimilar; or of dissimilitude betwixt objects apparently similar; or of contrariety and opposition, where none could well be suspected.

792. *Acuteness* consists in discovering differences betwixt notions apparently similar, or betwixt the signification of words apparently synonimous.

793. *Taste*, when just, consists in perceiving, with a proportionate degree of pleasure, the beauties of a composition, and its deformities with a proportional degree of disgust: a *refined taste*, is that which perceives the minutest degrees of either: a *depraved taste*, is that which receives pleasure from what should excite disgust, and disgust from what should give pleasure: a just taste is commonly formed by comparison and reflection.

794. *Ingenuity* denotes the possession of some or other of those abilities in a remarkable degree. It is evident that all are susceptible of different degrees.

The Abilities of the Faculty of Memory.

795. They may be reduced to three; the facility of acquiring and committing to it the

objects

objects ſought to be remembered, the power of retaining them for a length of time, and the readineſs of recollecting them. All ſuſceptible of different degrees.

SECT. II.

OF INTELLECTUAL DISABILITIES.

796. Intellectual diſabilities ariſe, either from a total or partial privation of the common intellectual powers, or from a total or partial perverſion of ſome or all of them, and ſometimes even of the pathetic emotions.

797. Hence they may be reduced to two claſſes, thoſe that ariſe from privation, and thoſe that conſiſt in perverſion.

798. Thoſe that ariſe from privation, are ideocy, ſtupidity, an uncommon want of memory, and incapacity of attention and of recollection.

799. *Ideocy* conſiſts in the incapacity of of diſtinguiſhing moral good from evil, comparing, diſcerning, or abſtracting, when at the

 period

period of life in which thoſe faculties ſhould exiſt.

800. *Stupidity* conſiſts in a difficulty of learning the ſignification of ſigns, or of exerting any of the above-mentioned powers; but it is ſeldom total: it may relate to one claſs of objects and not to others; it may relate to ſpeculative objects but not to the common tranſactions of life, and ſocial intercourſe; to one claſs of ſpeculative objects and not to other branches. *Dulneſs* denotes a leſſer degree of ſtupidity.

801. *Incapacity of attention* may alſo relate only to certain objects: defective memory and recollection, if total, amount to ideocy; but theſe defects are ſeldom ſo remarkable; the diminution of both theſe powers commonly accompany advanced age.

802. And in general, we may infer a weakneſs of underſtanding in thoſe in whom, after due examination, the ſtrongeſt proofs produce no conviction.

803. The diſabilities ariſing from the perverſion of the intellectual powers are numerous; I mean not to comprehend that inco-

herence and confusion that constitute the delirium of a fever, nor those that arise from a perverse will, nor consequently the criminal transgressions of the laws of God or conscience, but merely those that arise from disordered intellectual powers: those principally affected are the imagination and judgment, and sometimes the passions and emotions.

804. The most considerable perversion of the imagination consists in mistaking imaginations for sensations, with a full conviction of their reality; or in imagining oneself to be what he is not, a king, or emperor, or made of glass, &c.; or in mistaking objects for what they are not, as logs of wood for instruments of war, &c. This disorder constitutes madness, or phrensy, if accompanied with audacity, impudence, or violence; or melancholy madness, if accompanied with unreasonable fears, despondency, and dejection.

805. There is a state of imagination bordering on insanity, and sometimes passing into it: this consists in an uncommonly vehement and rapid flow of ideas, catching at the slightest or most distant associations: this, while

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under the control of the will, and manifested only on proper occasions, constitutes an admirable power: yet that it borders on insanity we have the testimony of the poet:

> Great wit and madness sure are near allied,
> And thin partitions do their bounds divide.

And a remarkable instance in Tasso. But when this rapid succession of ideas is ungovernable by the will, when the ideas themselves are incoherent, the transitions sudden and unconnected, some degree of insanity is appar ent.

806. To an imagination more or less disordered, we may attribute religious enthusiasm, fanaticism, superstition, and the rejection of reason in religious subjects.

807. *Religious enthusiasm* consists in a strong, but ungrounded, persuasion of an uncommon favour and communication with the Deity: it is susceptible of various degrees, but its extreme and most violent degree is *fanaticism*; which impels the enthusiast to commit the most frantic actions, often the most atrocious crimes, and embrace the most senseless, and even immoral tenets.

808. *Superstition* is a groundless persuasion of the supernatural efficacy of certain practices, words, or actions, and of the connexion of certain natural phænomena with future events, whether moral or political, as omens, augury, &c.

809. The *rejection of reason on religious subjects.* This some enthusiasts still contend for, particularly in the interpretation of the scriptures, as if we should expect a miraculous assistance, without any solid reason for expecting it: whereas, it is reason, and reason alone, that convinces us of the existence of the Supreme Being, and the truth of the Christian religion; and equally enables us to interpret the books in which it is contained, in all cases where that knowledge is necessary, and to reject any interpretation contrary to it.*

810. The delusions or mistakes arising from a depraved or misguided judgment are numerous; but in general we may remark, that where in any important subject the strength of conviction exceeds the strength of the

* The rejection of reason involves a contradiction, for if we ought to reject it, it is reasonable that we should reject it; therefore it is not rejected, but still remains.

proofs on which it refts, there fome degree of infanity is apparent.

811. Among many kinds of a perverfe judgment, I fhall felect the following: obferving, that they amount to infanity only when accompanied with a full perfuafion of their truth, or the folidity of their foundation; *ungrounded notions, unreafonable fufpicions, overweening prefumption, vifionary fchemes, erroneous eftimation of probabilities, blind attachment to prejudices, abfurd rules of interpretation.*

812. *Ungrounded notions.* Thefe regard either the paft, the prefent, or the future; among thofe that relate to the paft, we may reckon the wild fyftem of Epicurus, and many other fuch fyftems; among thofe that relate to the prefent, is the opinion of the tranfmigration of fouls from one body to another, and that the ancient patriarchs are now living; and as to thofe relative to futurity, the moft remarkable is the opinion of the fpeedy approach of the millenium, and reign of Jefus Chrift on earth; and among the ancients, the heathen Romans expected the extinction of Chriftianity to take place in the year 398; and Chriftians generally expected the

the end of the world about the year one thousand.

813. *Unreasonable suspicions, fears, and scruples.* Of such suspicions, Bayle says, "among the several epidemic distempers of "the human mind, I know of none more pro-"ductive of bad effects than the practice "of giving reins to suspicion. We easily pass "from one suspicion to another; we seldom "stop at possibility; we run forward to pro-"bability, and to the greatest probability, and "presently after, that which passed only for "probable, is reported as certain and incon-"testible. Great cities are more subject to "this disorder than others." Thus Arminius having undertaken a journey to Italy, it was presently after believed all over Holland that he had kissed the Pope's toe. Such suspicions are generally entertained by tyrants of the best and most virtuous of their subjects: the celebrated J. J. Rousseau became a victim to them.

814. *Overweening presumption.* Such was that of the stoicks, who were persuaded that in wisdom men could equal the Gods; and that of the Greeks, who supposed themselves superior to

all

all other nations, whom they deemed by nature destined for slavery; and that of the modern revolutionists, who thought themselves superior to all other nations in political wisdom, of which they were completely bereft. They fondly imagined they could render the world happier, by the destruction of Christianity, and even that they could effect it.

815. *Visionary schemes*; such as that of converting base metals into gold, of finding an universal remedy for all disorders, of discovering futurity by the various arts of divination.

816. *Erroneous estimation of probabilities.* I allude not merely to the faulty manner of calculating them; such as that of Mr. Hume, in his Essay on Miracles; nor to that of a celebrated calculator, in his answer to that essay; nor to that of Dr. Halley; in estimating concordant testimony; but principally to an erroneous determination of them, or their unnatural adjudication; for instance, the attribution of extraordinary events to causes inadequate to their production, as Mr. Gibbon and others have done in accounting for the origin and progress of Christianity: or the attribution

tion of ordinary events to unusual causes or motives, when ordinary causes or motives are sufficient, and no proof but vague suspicions of the existence of any other; for instance, the death of princes to poison, various disorders to magick, &c. But in general this erroneous judgment proceeds from our hopes and wishes, or from our fears, and not unfrequently from prejudices, party spirit, jealousy, and malignity.

817. *Overweening attachment to prejudices.* This prevents the Mahometans from examining the foundation of their religion, and many infidels from examining the proofs of Christianity: hence also the bigotry of the various Christian sects.

818. *Absurd rules of interpretation*, such as that the literal sense should always be deemed true, though apparently contrary to reason, or contrary to the general tenor of the writing; or taking words in a figurative sense, which may consistently be taken in the literal sense: by *absurd*, I mean glaring opposition to known truths.

819. Locke remarks, that madmen resemble those that argue justly from wrong principles;

ciples; their madneſs is frequently merely partial, being confined to one point; on every other they may reaſon pertinently, and even on that their reaſoning is perfectly juſt.* Of this we have a ſignal inſtance in the perſon of the celebrated Harrington, author of the Oceana, who imagined his animal ſpirits tranſpired from him in the ſhape of birds, flies, or bees; and argued ſo ſtrenuouſly that this was no depraved imagination, that his doctor was put to his ſhifts for an anſwer; yet, on other ſubjects he could diſcourſe as rationally as any man.†

CHAPTER VI.

OF THE ORIGIN AND DEGREES OF HUMAN KNOWLEDGE.

Knowledge being founded on ſenſations, ideas, notions, or their relations, their origin is firſt to be conſidered: the origin of theſe has indeed already been mentioned, but many think them innate, which I ſhall now briefly examine.

* B. ii. C. xi. ſec. 13.

† Britiſh Biography, vol. v. p. 405.

SECT. I.

OF INNATE IDEAS.

820. By *innate* is meant, imprinted on our minds and coeval with our exiſtence, or at leaſt with our birth; and by *ideas* I mean the feeble copies of our ſenſations. Now that we are affected with no ſenſations at our birth, but thoſe of feeling, taſte, and ſmell, is very apparent, and of ſuch ſenſations ſcarce any ideas can be retained, even when thoſe ſenſations are received at a maturer age. That the ideas of ſight and hearing are not innate, but derived from our ſenſations, is very evident, ſince thoſe who never received thoſe ſenſations, as thoſe born blind or deaf, have no ideas of colours or ſounds.

SECT. II.

OF INNATE NOTIONS.

821. It is alſo true, as Locke juſtly aſſerts, that we have no innate knowledge of even the ſimpleſt ſpeculative truths; ſuch as *that whatever*

ever is, is; or that *it is impoſſible to be, and not be at the ſame time*; for children never think of ſuch univerſal truths, nor do even the greater part of mankind, of which, nevertheleſs, if ſuch truths were innate, they muſt be conſcious; it is only the *capacity* of diſcovering them that is innate; but the actual knowledge of them is acquired. And ſo far even Leibnitz, though a Platoniſt, agrees with Locke; for he owns, "on peut pas les lire a "livre ouvert, ſans peine et ſans recherche "c'eſt aſſez qu'on puiſſe les decouvrire on "nous, a force d'attention." The mind at firſt acquires ſenſations, then ideas; to theſe names are given, and by degrees general names are underſtood, and at laſt general notions. A child knows not that four and three are equal to ſeven, until he can count ſeven, and thus he acquires the notion of *equality*.

822. In the ſame manner ſimple *ſpeculative* truths are diſcerned, when the terms they conſiſt of are underſtood; ſo all other *ſpeculative* notions are known by reaſoning; none can be deemed innate.

823. Practical moral truths, when *ſimple* are diſcerned when the terms that expreſs them

them are underſtood; not by reaſoning, but inſtinctively by the moral ſenſe, which, like other ſenſes, is by nature implanted in us; but if more *complex*, the aſſiſtance of reaſon is required to diſtinguiſh and develope the various relations which they involve, which muſt be attended to, and evolved, before a caſe can be rendered ſufficiently clear to enable the moral ſenſe to ſuggeſt any deciſion. The duties of gratitude, juſtice, and fidelity to contracts, all men agree in allowing; many indeed fail in performing them, becauſe they are alſo actuated by other inſtincts as forcible as their moral inſtincts, which frequently contradict its dictates; and men have the liberty of chuſing which of thoſe inſtinctive principles they will obey.

824. Locke thinks, that outlaws and robbers practiſe the rules of juſtice to each other merely as rulesof convenience, without which their ſociety could not exiſt;* but it is plain to me that he is egregiouſly miſtaken; ſuch abſtract conſiderations ſeldom occur to that

* Locke, B. i. C. iv. ſec. 9.

claſs

clafs of men: the conduct of many of them who have not cheated their affociates, even when they could do it with advantage to themfelves, nor betray them even to fave their lives, evidently proves they were actuated by principles very different from that of mere convenience. All his other arguments are equally weak and groundlefs, as might eafily be made to appear, if this were the proper place: his and Montefquieu's credulity in giving ear to the incredible tales of Thevenot, Garcilaffo de Vega, and Baumgarten, is aftonifhing.

825. Neither is the *notion* we have of *God* innate; it is evidently a conclufion of reafon; for the vifible marks of extraordinary wifdom and power, appear fo plainly in all the works of the creation, that a rational creature, who will but ferioufly reflect on them, cannot mifs the difcovery of a Deity.

826. The notion of a *foul* arifes from confcioufnefs, memory, and reflection.

827. *General notions* are derived from the relation of fimilitude, which is either immediately difcerned or inferred by reafoning.

Complicative

Complicative notions arife from reflections on various objects connected with each other under a particular name.*

828. Practical experimental truths are evidently learned by our own experience, or by inftruction.

SECT. III.

OF THE DEGREES OF HUMAN KNOWLEDGE.

829. Knowledge is a word varioufly applied; fometimes it is fynonimous to the *confcioufnefs* of a perception or any other prefent ftate of the mind, as when I fay, *I know what I feel, fee, or hear*; or *I know that I remember*; fometimes it denotes the *ability of diftinguifhing*, as when I fhould fay, *I would know my horfe among a hundred*; fometimes it is fynonimous to *conviction*, as when I fay, *I know I had an anceftor one thoufand years ago*; frequently it fignifies *acquaintance* with a fcience, as when it is faid, *Newton's knowledge of mathematics was profound.*

* Locke, B. ii. C. 22.

830. Knowledge is either *direct*, as that just described, or *indirect*. Direct knowledge is that gained by the medium of one's own senses, and therefore called *sensitive*, or *experimental knowledge*; or by one's own reflection, study, and meditation, such as the knowledge of geometry, logick, metaphysics, &c.: this is called *speculative* knowledge, in contradistinction to *practical*, which denotes the knowledge of the manual arts.

831. *Indirect* knowledge is that which rests on proper testimony, whether written or oral; or it is inferred from the falsehood of a contradictory proposition.

832. Knowledge then is grounded either on consciousness, the perceptions of sense, the discernment of relations, or the suggestions of memory.

833. By *consciousness*, the existence of states of the mind, whether active or passive, is known, and consequently the perceptions of sense, emotions, affections, passions, judgments, and the dictates of the moral sense.

834. On the *discernment of relations*, judgments and reasoning are founded.

835. On the relation of analogy, and partly

also

alſo on inſtinct, the *perſuaſion* that the paſt reſembled the preſent in ſimilar caſes, and the *expectation* that the future alſo will reſemble the preſent, and conſequently what is called experimental knowledge, entirely reſt.

836. On the ſame grounds, the admiſſion and reliance on teſtimony are grounded.

837. From the ſuggeſtions of memory, the continuance of every ſpecies of knowledge ariſes.

838. The degrees of knowledge are various, but it is only to the higher degrees, that the denomination of *knowledge* is attributed.

839. The degrees of knowledge reſult from a more or leſs perfect diſcernment of relations, or from a more or leſs perfect memory.

840. The higheſt or ſupreme degree of knowledge is founded either on conſciouſneſs, or on the full, clear, and accurate diſcernment of the relations of identity, equality, or coincidence, or of the relation of cauſation, or on that of incluſion, or on the primary dictates of the moral ſenſe, or on Divine relation, clearly proved and aſcertained, or on perfect memory. See N° 761.

841. Knowledge thus grounded is called

evident, the conviction arising from it being similar to that resulting from clear and distinct vision: it is attended with a sentiment of firm and entire confidence, which is called *certainty*, a term also borrowed from vision, and the objects of it are also called *certain*, that is, deemed to be as clearly known as if they had been seen.

842. But unfortunately such confidence attends, and has attended judgments, not grounded on evidence, nor even on any approximation thereto, but, on the contrary, clearly proved to be false. Such as that the planet we inhabit is a flat and not a round mass; that the sun moves round it, that it rises and sets, &c. Such judgments proceeded from inattention to the frequent mistakes occasioned by reliance on mere appearances in numerous instances, and not remarking that it is from experience alone we learn to form a true estimate of the credit that should be given to them.

843. In the same manner judgments early formed, and long persisted in, but originally grounded on authority, perhaps indeed the most respectable, are adhered to with the utmost

moſt confidence, and conſidered as abſolutely certain, though the ſlighteſt reflection might convince men, that betwixt any authority (except the Divine) and any ſpeculative truth, no neceſſary connexion ſubſiſts; and that the moſt oppoſite tenets are ſupported by authorities equally reſpectable; that therefore a ſtrict and impartial examination can alone lead to a deciſion that may be fully relied upon.

844. The paſſions of hope, fear, love, hatred, party attachments, impatience, diſguſt, in ſhort all paſſions, form another copious ſource of deluſion, either by urging precipitate deciſion without any examination, or preventing a due attention to the reaſons that oppoſe the ſide of the queſtion they favour; yet the deciſions they ſuggeſt are frequently relied on with the utmoſt confidence, and conſidered as certain.

845. Though evidence is not ſuſceptible of degrees, nor conſequently the certainty that attends it, yet there are many approximations towards it, and the neareſt or higheſt of theſe are very properly attended with a degree of confidence equal to that which reſults from

 evidence

evidence itſelf: ſuch approximations when found in moral ſubjects, are therefore ſaid to be *morrally certain*, and when in phyſical ſubjects, *phyſically certain:* this certainty is ſuſceptible of degrees.

846. *Moral certainty* relates to facts; when derived from unimpeachable teſtimony it is called *extrinſic*; when on reaſoning from indubitable facts, human nature, or the characters of men, it is called *intrinſic*; but theſe characters can frequently be known only by teſtimony, conſequently intrinſic certainly frequently involves extrinſic.

847. *Phyſical certainty* in many inſtances is founded on our own conſtant and uniform experience of ſimilar effects in ſimilar caſes, but our more extenſive knowledge of the conſtancy, and uniformity, and univerſality of theſe or any other effects, is ſolely derived from approved teſtimony, as no man has lived in all ages, nor has ſeen what paſſes or has paſſed in all other countries, in many of which, events happen or have happened unexperienced in other countries or ages. Thus the phyſical certainty, even of the laws of nature, embraces alſo moral certainty. That the

the preſent generation had anceſtors two thouſand years ago, though now unknown, is *phyſically* certain; for who can doubt it? And it is equally certain that we ſhall die, though we have not experienced death: hence phyſical certainty does not always require conformity with our perſonal experience. Particular reſults from unknown laws of nature, as earthquakes, volcanoes, &c. are from uncontroverted teſtimony known with certainty by thoſe who never have witneſſed ſuch phænomena.

848. The convictions gained by ſuch cloſe approximations to evidence are alſo knowledge, but perſuaſions grounded on more diſtant approximations, are known by the name of *opinions* or *belief*, and the things believed are called *probable*.

Probability is ſuſceptible of various degrees; the loweſt is called *ſuſpicion*; below it we rank *doubt*, *improbability*, and impoſſibility.

849. Judgments therefore are either evident and certain, or certain though not evident, or more or leſs probable, or merely doubtful.

SECT. IV.

OF TRUTH, REALITY, AND REASON.

850. *Truth* is taken in two fenfes: firft, it is taken for the exiftence of a correfpondence, conformity, or agreement of figns, with the things fignified; or for the abfence of fuch correfpondence or agreement, where they do not exift: thus, that *a circle is a line whofe parts are equidiftant from a common centre,* is a true propofition. So *that five and three are not ten, is alfo a* true propofition.*

851. Secondly, truth is taken as fynonimous to *reality*, and reciprocally by reality truth is underftood; *true gold* denotes real gold, having all the properties of gold; a true circle denotes a figure that is really circular: it is then underftood in contradiftinction to merely *apparent*, fanciful, or imaginary. *Apparent* is a term borrowed from the fenfe of feeing, and *real* is a term taken from the fenfe of feeling. Now, as we are often deceived by the fuggeftions of fight, and never by the fenfe of feeling, *reality* and truth are confidered as

* 1 Pourchot, 52.

fynonimous;

ſynonimous: yet, as the ſuggeſtions of ſight, when corrected by experience, are not at variᴇnce with ſenſations of feeling, appearances and reality often coincide; the ſame thing may be true both in appearance and in reality.

852. *Reality*, then, though originally a term applied to the objects perceived by the ſenſe of feeling, is alſo aſcribed to all other objects, of whoſe exiſtence we are as confident as we are of the exiſtence of the objects of that ſenſe.

853. Evident truths never contradict each other, but truths that are *barely certain* may in a few inſtances: thus, though it is phyſically certain that bodies ſpecifically heavier than water will ſink in it, it is equally certain that leaf gold, though twenty times ſpecifically heavier, will not ſink in it. Miracles are alſo exceptions to thoſe general laws of nature on which our certainty of facts, contradictory to thoſe miraculous facts, are founded.

854. Thus, truths grounded on *moral certainty* or *revelation*, may contradict thoſe grounded on *phyſical certainty*; and, *a fortiori*, they may contradict truths that are barely probable;

probable; but they cannot contradict those that are evident.

855. A *false proposition* is not always *contrary* to a true proposition, for it may be contrary to another false proposition: for instance, the following contrary propositions are both false; *all men are white, all men are black.**

856. Of truths, some are necessary, some contingent; *necessary* truths are those only which are evident; *contingent* truths are those which may or might, by any possibility, not have existed.

857. *Reason* is also a word susceptible of different senses.

First, it is taken for the power or *faculty of reasoning*, or in other words the discursive power, as some call it; as when it is said, that *man is the only animal endowed with reason.*

858. Secondly, it is taken for the *exercise of that power*; and also for the perceptions of the moral sense; as when we say that *the conduct of men should be governed by reason.*

859. Thirdly, it is taken for *truth*, and for

* See Log. Vol. I. Nº 115.

right,

right, as when it is ſaid, that an opinion, judgment, or ſyſtem, is *conformable to reaſon*; or *that it is right*, or *conformable to juſtice*.

860. Fourthly, it often denotes an argument by which we would prove any truth, or refute any falſehood; as when we ſay, *this muſt be true, for this or that reaſon.*

861. Fifthly, it is taken for occaſional, or efficient, or inſtrumental, cauſe: as when we ſay, *the reaſon of his change of conduct, was a trivial accident*, &c.

Sixthly, it is taken for a *motive*, or final cauſe.

862. A reaſon may be either evident, certain, probable, right, juſt, or proper, or the contrary.

863. A propoſition, or action, or conduct, is ſaid to be *conformable to reaſon*, when agreeable to certain or evident truths, or even to probable truths, where neither evidence or certainty can be attained; or when agreeable to the dictates of the moral ſenſe.

864. A propoſition is ſaid to be *contrary to reaſon*, firſt, when it contradicts any evident truth; ſecondly, when it contradicts any truth phyſically certain, unleſs this be contradicted

by

by a ſuperior certainty; thirdly, when it contradicts a probable or more probable truth.

865. A truth is ſaid to be *above reaſon* when it is not directly diſcernible by our reaſoning faculty, nor *analogous* to any known truth, and yet is neceſſarily connected with and inferred from, a known truth, or contradicts a known falſehood. That the Supreme Being is *eternal*, is a truth of this ſort, being inferred from the neceſſity of his exiſtence.

SECT. V.

OF THE DEGREES OF ASSENT, CERTAINTY, AND PROBABILITY.

866. The firſt and higheſt degree is that which we give to evident truths, whether intuitive or demonſtrative, metaphyſical, mathematical, moral, or revealed. The intuitive perhaps demand the higheſt, as they are immediately diſcerned, and alſo thoſe that are immediately revealed; whereas thoſe that are demonſtrated, particularly the mathematical, require the exerciſe of memory; but when the proceſs of deduction is repeated, and each ſtep

is intuitively evident, the whole is as evident as the firſt ſtep.

867. The ſecond is that given to irrefragable teſtimony.

868. The third is that given to mathematical or other propoſitions, which we perfectly remember to have once demonſtrated, and are generally received, but whoſe demonſtration we cannot now recollect.

869. The fourth is that which we give to the laws of nature, which we have learned by experience or irrefragable teſtimony, even though we ſhould not now recollect the experiments from which thoſe laws were inferred. *Experimentum fallax* is an aphoriſm generally received, but not *experementa ſunt fallacia*: a ſingle experiment may not be a foundation ſufficiently ſolid on which to erect any law, but numerous experiments are, if uniform and univerſal.

870. Here certainty ends.

871. The fifth is that given to facts intrinſically *probable*, and ſupported by credible teſtimony, but whoſe probability, whether intrinſic or extrinſic, is ſuſceptible of increaſe.

872. The ſixth is that given to an argument

ment or opinion which is deemed more probable than that oppoſed to it. It may be increaſed by its agreement with the opinions of men of the moſt reſpectable authority, or diminiſhed by their oppoſition, if diſintereſted and diſprejudiced.

873. The ſeventh is that given to *indifferent* facts ſupported by credible teſtimony, but ſuſceptible of increaſe.

874. The eighth is that given to uncommon and marvellous facts, ſupported by credible teſtimony, but ſuſceptible of increaſe.

875. Conſequences logically deduced from any principle or truths, are as certain as the principles from which they were deduced: but probable conſequences are leſs probable than thoſe from whence they were deduced.

876. The ninth is that given to propoſitions not underſtood by the perſon who aſſents to them merely on highly reſpectable teſtimony; of this ſort are many mathematical and other ſcientific propoſitions, which are credited though not underſtood by perſons ignorant of thoſe ſciences.*

* Locke, B. iv. c. xv. ſec. 1. and my Log. N° 686, Vol. II.

SECT. VI.

OF ABSURDITY, UNINTELLIGIBILITY, INCOMPREHENSIBILITY, INCONCEIVABLENESS, AND INEXPLICABILITY.

877. *Abſurd.* Whatever contradicts opinions generally received, is deemed abſurd, whether thoſe opinions be true or falſe; hence we ſee an opinion or propoſition may be *really* or *falſely* deemed abſurd. In the latter caſe the abſurdity is merely *imaginary*: thus the Copernican ſyſtem, and the notion of antipodes, were long reckoned abſurd.

878. A term is *unintelligible* when it has no ſignification, as *blytri*.

879. Complex terms are *unintelligible* when repugnant to each other, though each be intelligible, as a *round ſquare*.

880. A complex term is alſo *unintelligible* when no relation can be diſcerned betwixt the terms it conſiſts of, though each apart may be underſtood; for inſtance, the ſubſtantial *forms* of the peripateties, the interior moulds of Buffon, &c.

881. A propoſition is *unintelligible* when the terms it conſiſts of are deſtitute of any ſignification,

signification, as *blytri is bocardo*, or the *soul is bocardo*; or whose subject and predicate are repugnant to each other, as *God is unjust*.

882. But if the terms of the proposition bear any analogy to terms whose signification is known, it may be understood, though imperfectly: thus colours are not entirely unintelligible by a blind man, as I have elsewhere shewn; though he can form no idea of them.

883. A thing is said to be *incomprehensible*, first, when all its properties cannot be known, and in this sense all things are incomprehensible; and, secondly, when it is imperfectly intelligible, as the eternity and infinitude of the Supreme Being. But we may form notions of them, though imperfect.

884. A proposition is *inconceivable* when neither an idea nor a notion of it can be formed; and thus it differs from incomprehensible.

885. A thing is *inexplicable* when the series and operation of its intermediate causes cannot be assigned. Inexplicability, or inconceptibility, is a just exception to an unproved hypothesis, though it be not to a known fact

or acknowledged truth. Clarke's Reply to Waterland, 305, 306.

CHAPTER VII.

OF HABITS.

886. *Habit* is a long-continued repetition of action or endurance, by which a greater facility of either is commonly gained. I say endurance, because a person may be habituated to abstinence, fasting, cold, and other privations, which, from frequent repetitions, are more easily endured: habits therefore may be either active or passive. To be habituated, signifies to have undergone frequent repetitions of either kind.

887. The commencement of either kind of habit is fully attended to, being frequently accompanied either with pain or pleasure; but in its progress, both are gradually diminished and finally vanish; and, what is more extraordinary, the pain is often transformed into pleasure, as in the habit of chewing, smoking, and snuffing tobacco: and pleasure frequently

terminates in diſguſt, as may be obſerved in ſcenting ſweet ſmells, the repetition of the ſame ſtory, jeſt. &c.

888. In habitual action, though ſome degree of attention be abſolutely requiſite, yet its degree is often ſo ſmall and ſo tranſient, that it cannot be recollected; this is ſtrikingly apparent in the rapid execution of muſic, where the notes, both of treble and baſs, and the proper poſition of the fingers, muſt inſtantaneouſly and ſimultaneouſly be attended to, though the different volitions requiſite for each cannot be recollected. The ſame fugacity and oblivion of attention are obſervable in reading, rope-dancing, &c. See Stewart's excellent obſervations on attention, in his Eſſay on the Mind, Part. ii. Chap. 2. And for the ſame reaſon a noiſe to which we are long accuſtomed, as that of a caſcade or water-fall, by thoſe that live in its neighbourhood, ceaſes at laſt to be diſtinctly noticed, its perception being nearly evaneſcent. Stewart's obſervations on habits are new, curious, and ſatisfactory.

CHAPTER VIII.

OF THE FACULTY OF APPROBATION AND DISAPPROBATION, OR THE SENTIMENTAL FACULTY.

889. As by the faculty of judgment we difcern truth and falfchood, fo by the faculty of approbation or difapprobation we acquire the perception of *right* and *wrong*.

890. Thefe two faculties fhould not be confounded with each other, for their general objects are different: the object of judgment and reafoning is the difcovery of truth or falfehood, the object of the faculty of approbation is the *perception* of right or wrong. Their grounds are alfo different; thofe of the judicial faculty are the difcernment of the relations of identity, or diverfity, fimilarity, correfpondence, caufation: the ground of the fentimental faculty, is not a relation of any kind, but a mere perception.

891. The difcernment of a truth before unknown is attended with pleafure; but that pleafure is not a perception of any quality in

 the

the objects, but results from the consciousness of possessing the ability of discovering it, or from a prospect of its use in promoting and facilitating practical or speculative knowledge: whereas the pleasure of approbation, and the pain attending disapprobation, arise from a perception of qualities perceived in the objects approved or disapproved.

892. Both faculties agree in this, that the judgments of the one and the perceptions of the other are frequently intuitive. It must also be remembered, that this perception is frequently, though improperly, called a judgment.

893. To *approve* an object, therefore, signifies that we are pleased with it; and by exciting that pleasure, it is said to be *right* or *good*: and to *disapprove* an object, is to be displeased with it; and by causing that displeasure, it is said to be *wrong* or *bad*, faulty or ridiculous.

894. The objects of approbation or disapprobation are either of a *physical* or *moral* nature: the former, if approved, are *physically right, or good*; if disapproved, *physically wrong, or bad*. Thus we approve of a well-contrived

trived machine that anſwers the purpoſe for which it was intended, of any uſeful invention, of an entertaining poem, of an exact repreſentation, of a true hiſtory, &c. This approbation extends alſo to the author of ſuch pleaſing works, and then it is called *praiſe.*

895. *Objects of a moral nature* are thoſe that regard the conduct of men, either with reſpect to themſelves, or towards the Supreme Being, or towards each other. Such conduct or actions as are approved, after a due inveſtigation, if any inveſtigation be required, are ſaid to be *right*, or morally *good*; and ſuch as are diſapproved are ſaid to be morally *wrong*, *bad*, or *evil*; ſuch as excite no ſentiment of approbation or diſapprobation, are *indifferent*, and of this nature are all actions abſtractedly conſidered; actions productive of approbation, but whoſe omiſſion is not attended with diſapprobation, may be called *heroic.*

896. As moral actions are by far the moſt important, and concern moſt nearly the happineſs of the agent, as well as of human ſociety; and as the pleaſure or diſpleaſure at-

tending their perception is by far the most considerable; the faculty of perceiving those sentiments obtained the name of *moral sense*, or *instinct*, or *conscience*.

897. As there is a natural and evident necessity that we should *love* what pleases us, and dislike or hate what displeases us, this necessity, when applied to the pleasing or displeasing perceptions of the moral sense, is called a *moral obligation*. Consequently we are obliged to entertain those sentiments, and pursue that line of conduct which the moral sense approves, and avoid such as the moral sense disapproves.

898. Such of our actions or sentiments as are approved, and whose omission by us is disapproved, are called our *duties* and *obligations*.

The duties of *others to us* are called *our rights*, and their obligations. *Our* duties to others are called *their rights* and our obligations.

899. Though actions, as being manifest, are the primary objects of our approbation or disapprobation, yet the resolutions, intentions, and sentiments, that influence the production

of

of thoſe actions, and the agents, authors, or adviſers, &c. from their connexion with theſe actions, naturally participate of the approbation or diſapprobation which thoſe actions excite.

900. As actions that are *approved* give us pleaſure, they naturally excite benevolent affections towards the agent; we wiſh him in return an adequate degree of pleaſure and ſatisfaction, and approve of his receiving it. An equivalent pleaſure or ſatisfaction thus deſired and approved, in return for a pleaſure or benefit received, is called a reward; and the perſon on whom we approve of its being conferred is deemed to be entitled to it; or, in other words, to *merit* or deſerve it, or that there is a propriety in his receiving it.

901. *Merit* then conſiſts in the title or right to a reward; and the action by which this title accrues, and the intentions that lead to it, are called *meritorious*.

902. Of actions that are *diſapproved*, it is plain that what is above ſaid is equally to be underſtood, but in a contrary ſenſe; ſubſtituting *pain* for pleaſure, and malevolent for benevolent.

903. *Demerit*, or guilt, then consists in a title or liability to pain.

904. The action of a being possessed of freedom, and sufficient intelligence to enable him to distinguish whether it be right or wrong, is called a *moral* action; otherwise it is merely *physical*. Hence the actions of infants, and many of those of ideots or madmen, are incapable of merit or demerit; but if a person, voluntarily and knowingly, puts himself or others in a state that deprives him or them of intelligence (as drunkenness,) it diminishes his guilt but in a very slight degree. The *morality*, or moral nature of action, requires these conditions.

905. An action is morally evil, if its motive, intention, end, or the means employed to attain even a good end, are disapproved as morally evil.

906. Where previous facts, or the necessary or probable consequences of actions require consideration and discussion, there the *judicative* faculty operates; but where the resulting rights or duties are weighed, on these the moral faculty decides.

907. Duties are either *perfect* or *imperfect*; they

they are perfect where the persons to whom they are due are known, certain, and determinate, and the extent or measure of the duty ascertained; the corresponding rights of the persons to whom they are due are then perfect: but where the persons to whom their performance is due, are undetermined, and the measure of the performance undefined, the *duties*, and also the corresponding *rights*, are imperfect.

908. Yet the total neglect of these imperfect duties must be disapproved; as, among their various objects, some may be selected, and the measure of performance should be proportioned to the abilities of the performer, and consistent with other duties: the perfect should always be preferred to the imperfect.

909. *Justice* consists in the performance of a perfect duty; therefore, it is the *right* of those to whom it should be done, if beneficial to them; or of society, if beneficial to it; and an *obligation* upon those who should perform it.

910. Justice is commonly divided into distributive and vindictive, to which we may add, *corrective* and *preventive*.

911. *Distributive justice* consists in giving to every one, that to which he has a perfect right.

912. *Vindictive justice* demands the infliction of adequate pain on him, whose actions are strongly disapproved, and therefore deserve punishment. See N° 900, 901, 902.

913. *Corrective justice* requires the infliction of such punishment for certain evil actions, as is deemed necessary for the amendment of the persons on whom it is inflicted.

914. *Preventive justice* consists in punishing offenders, with a view of preventing the innocent from being perverted by their example and impunity: and even of subjecting innocent persons to inconvenience, if afflicted with a dangerous contagious disorder, to prevent its extension.

915. *Law* is the just command of a rightful superior, duly promulgated, and to which obedience is due. It should be *just*, for if evidently unjust it is not a law, and should not be obeyed: but if its injustice be barely probable, obedience should be yielded to it.

916. Secondly, the superior should be rightful,

ful, otherwiſe the command of a robber would be obligatory.

917. Thirdly, it ſhould be known, as is evident.

918. Law is either *external* or *internal*: the external is that revealed by God in the canonical books of the Old and New Teſtament, and the municipal law of the country. The internal conſiſts in the dictates of the moral ſenſe; for theſe ſpontaneouſly ariſing from the conſtitution of our intellectual faculties, and diſobedience to them in many caſes puniſhed by the ſevere pain of remorſe, muſt be derived from the Supreme Being, and conſequently are the commands of a ſuperior whoſe juſtice cannot be controverted.

919. Yet theſe dictates are liable to perverſion, at the firſt dawn of our intellectual faculties, by thoſe to whom our education is intruſted; or may afterwards be miſled by plauſible arguments not ſufficiently conſidered and compared with thoſe that oppoſe them; or by authorities in whom, in general, we have reaſon to confide; or by paſſion, prejudice, or inattention. Such errors

are ſometimes excuſable in ſome degree, and ſometimes not.

920. Firſt, when the objects upon which the moral ſenſe is to decide are intricate, involving rights or duties apparently oppoſite to each other; or reſting on facts whoſe falſehood is not then known, and ſufficient attention has been applied, its errors proceed from want of penetration or inculpable ignorance, and therefore are fully excuſable.

921. Secondly, errors militating with the moſt ſimple dictates of the laws of nature, and obvious on the ſlighteſt cool reflexion, are inexcuſable; nor can ignorance, and ſtill leſs cuſtom, long or univerſal uſage, or any authority inferior to that of the Author of nature, afford a ſufficient plea for their extenuation; indeed ſuch ignorance cannot be ſuppoſed.

922. Thirdly, nor can the dictates of an erroneous conſcience in any caſe excuſe compliance with its ſuggeſtions when they urge to the commiſſion of actions manifeſtly and immediately injurious, or to the infliction of puniſhment for mere ſpeculative opinions or practices, neither ſhocking to humanity, nor

dangerous

dangerous to ſociety. Chriſt ſaid,* that thoſe that would put his diſciples to death, would belive they thereby pleaſed God: could that exempt them from criminality, even allowing them to have acted under the authority of the Sanhedrim, the higheſt legal authority in their ſtate? Motives much ſuperior to any human authority, and ſufficiently notorious, then exiſted, which ſhould have deterred them from the commiſſion of ſuch atrocious crimes.

923. Nor can any ſtate neceſſity ever ſo evident, and much leſs the probability of ſuch neceſſity, authoriie the privation of an innocent individual of his life, or even of his liberty, or any other right, without a compenſation. The ſtate maxim *ſalus populi ſuprema lex* does not extend to ſuch caſes.

924. All general rules are commonly denominated *laws*, thus the general rules which bodies obſerve in the communication of motion, are called the laws of motion; but thoſe general rules which our moral faculties obſerve in approving or condemning whatever

* John xvi. 2. See alſo 1 Corinth. xv. 9.

ſentiment

sentiment or action is subjected to their examination, may much more justly be denominated such: they have a much greater resemblance to what are properly called laws which a sovereign enacts for the conduct of his subjects: like them they are rules to direct the free actions of men; they are prescribed most surely by a lawful superior, and are attended to with the sanction of rewards and punishments. Those vicegerents of God within us, never fail to punish the violation of them, by the torments of inward shame and self-condemnation; and, on the contrary, always reward obedience with tranquillity of mind, with contentment and self-satisfaction.*

925. *Virtue* consists in the practice of perfect and imperfect duties: its degree is measured by the difficulties that attend them, and bears an exact proportion to the efforts made to surmount them: the imperfect duties should not be practised at the expense of the perfect, nor these to the neglect of the imperfect.

* Smith's Moral Sentiments, Part. iii. chap. iii. p. 236.

ESSAY III.

OF THE EXISTENCE, AND ATTRIBUTES OF THE SUPREME BEING.

CHAPTER I.

OF THE EXISTENCE OF THE SUPREME BEING.

926. By the Supreme Being is meant, the first of all beings, and from whom all other beings are derived, or in other words to whom they owe their existence: this Being is called *God*, or the *Deity*.

927. The existence of a Supreme Being is not an intuitive truth, that is, discerned as soon as the terms are understood; it requires the exercise of our reasoning powers to present it to the mind in its full force; but it is capable of being proved demonstratively, both *a priori*, and *a posteriori*.

928. A demonstration is a proof whose premises are self-evident, or which produces in us a conviction equal to that produced by self-evident premises. The existence of every being

being different from our own (of which we are conſcious) is known to us either by diſcerning the neceſſity of its exiſtence from its nature, or from its cauſes; and as theſe are known prior to the inference of its exiſtence, the proofs thus ariſing are called *a priori*: or the exiſtence of a being different from our own is known to us by its effects upon us; and as theſe are ſubſequent to its exiſtence, the proofs derived from them are called proofs *a poſteriori*.

SECT. I.

A DEMONSTRATION OF THE EXISTENCE OF THE SUPREME BEING A PRIORI.

929. Since many beings now exiſt, ſome one or other of the following propoſitions concerning the duration of their exiſtence muſt be true, as they comprehend every poſſible caſe.

First, *all* the beings now exiſting, always exiſted.

Second, *ſome* of the beings now exiſting, have always exiſted.

Third,

Third, *one* of the Beings now exifting, has always exifted.

Fourth, *none* of the beings now exifting, has always exifted.

930. The firft propofition is evidently falfe, for we are confcious that we ourfelves have not always exifted, and we are certain that neither the prefent or paft generations of animals or vegetables have always exifted.

931. The fourth is alfo falfe, for if *none* of the beings now exifting had always exifted, no being now exifting could ever exift: for their prefent exiftence, fince they do exift, muft in that cafe have had a beginning; but this beginning would be impoffible, as they could not give exiftence to themfelves, and no other being, from whom they could receive it, is, (by the propofition) fuppofed to exift. A *beginning* implies a change from non-exiftence to exiftence; a *change* implies an action, and an *action* an agent: now that agent muft be another Being which had no beginning, elfe the fame impoffibility would recur; therefore the fourth propofition is falfe, as its verification would require an impoffibility, an action without an agent.

932. Therefore the third propoſition muſt be true, as it exactly contradicts the fourth; and of two contradictory propoſitions, if one be falſe the other muſt be true.

933. But as the third propoſition is not exclusive, its truth does not impeach the poſſible truth of the ſecond, namely that ſome beings have always exiſted, and conſequently, that at leaſt two may have always exiſted; its falſehood however ſhall be ſhewn in the third ſection: in the mean time we ſhall ſuppoſe that one only being has always exiſted.

934. The non-exiſtence of a Being which has always exiſted is abſolutely impoſſible; for a Being that has always exiſted, can at no imaginable period of duration be ſuppoſed to have been merely poſſible, and conſequently non-exiſting; now the non-exiſtence of a being, which being cannot in imagination be ſuppoſed to have been merely poſſible (for any thing poſſible may be ſuppoſed) muſt be impoſſible; and if its non-exiſtence be impoſſible, its exiſtence muſt be neceſſary; and a being whoſe exiſtence is neceſſary we call *God*.

935. This neceſſity is not merely [illegible]

that

that is, merely inferred, from the existence of other beings, whose existence requires a cause, but it is *absolute*; for if no other being had ever existed, this necessity (though in that case unknown to us) would equally subsist. What it arises from, or on what principle in the Divine constitution it is founded, we do not know; but that it exists we evidently see, since we know its absence to be impossible: our ignorance of its nature affords no ground of disbelief, for we are equally ignorant of the nature of our own thinking principle, and yet we must believe its existence.*

Proofs a posteriori.

936. The proofs *a posteriori*, extend much further than those *a priori*; for they do not barely demonstrate the existence of the Supreme Being, but also his power, intelligence, and wisdom, to a boundless extent.

First, we know that we ourselves exist, and

* Another and most ingenious proof, *a priori*, of the existence of the Supreme Being has been given by Dr. Hamilton, late Bishop of Ossory, in a particular tract published in 1785.

 that

that our parents are only the occasional causes of our existence, but are totally ignorant of the mode of our formation and structure: these, therefore, must be effected by a Being totally foreign to us, and of a superior nature.

973. Secondly, we are conscious of a variety of states, viz. our sensations, affections, whether pleasurable or painful, and that we cannot produce the former, nor avoid feeling the latter by a mere act of our will; therefore we are not the *direct* causes of either: but as no state or modification can exist without an efficient cause, these modifications must be produced by a Being foreign to us, whose power is far greater than any we possess.

938. Thirdly, in the disposition and arrangement of that series of sensations which we call the works of nature, because they exist independently of our will, we find a connexion established betwixt our visible and tactile sensations, by which, as by an universal language, we are instructed how to act with respect to things distant and future, as well as near and present; consequently we have the same proof of the existence of the Being

Being that communicates to us this instruction, that we should have of an invisible man that should instruct us by sounds; that is, speak to us and tell us how to act on different occasions. See N° 470, 471.

939. Further, the works of nature, as they are called, whether animate or inanimate, exhibit such a wonderful display of intelligence, contrivance, and design, as render it impossible for an attentive and rational mind not to consider them as the effects of a Being possessing those attributes in a degree far exceeding any assignable or conceivable limits, and therefore justly deemed infinite. The instances are too numerous to be here detailed; an extensive, and yet much contracted, view of them may be had in Archdeacon Paley's excellent treatise of Natural Theology.

SECT. II.

OBJECTIONS.

940. Most of the objections to the existence of the Divine Being are grounded on the sup-

 position

poſition of the exiſtence of matter, which, atheiſts ſay, exiſted from all eternity, and is ſuſceptible of infinite modifications and arrangements, during an infinite ſpace of duration; and hence ſome, even Chriſtian theologians,* denied that the exiſtence of the Supreme Being could be demonſtrated, and that it at moſt could be rendered highly probable.

941. But as it has been ſhewn, that matter itſelf is an ungrounded fiction, involving a contradiction, theſe objections require no conſideration. I ſhall ſtate only thoſe that do not depend on this ſuppoſition.

942. In the firſt place, it is ſaid, that no connexion can be diſcerned betwixt the will of one being, that another ſhould exiſt, and the ſubſequent exiſtence of that other; and that therefore the derivation of the latter from the former is *inconceivable*: and in truth, if abſtractly conſidered, it is ſo; but it is not repugnant, and therefore it is poſſible, unleſs we take for granted, that whatever is inconceivable is alſo impoſſible, which is evidently falſe:

* See 1 L'Herminier, p. 37. [illegible]

falſe: can we conceive the connexion betwixt the motion of one of our limbs and our will to move it? But, laying abſtractions aſide, the connexion betwixt the will of a Being whoſe power is infinite, and the exiſtence of another being which he wills to exiſt, is eaſily diſcerned; for if that other being be in itſelf poſſible (and its exiſtence ſhews it to be poſſible) it may well be produced by a power that knows no bounds, but thoſe of poſſibility: whereas the production of motion, by the ſole act of our impotent will, is truly inconceivable. The antient maxim, *ex nihilo nihil fit*, is not applicable to infinite power.

943. Some atheiſts deny the neceſſity of inferring the exiſtence of one unoriginated being, in order to account for the exiſtence of all other beings. They tell us there exiſts an infinite ſucceſſion of beings, each of whom derived its exiſtence from preceding beings, as theſe did from others anterior to them, in an endleſs progreſſion, and yet that the whole ſucceſſion exiſts neceſſarily; and thus they think, that though each link or branch of the ſucceſſion was produced, yet that the whole was unproduced.

944. But, in the first place, a succession actually infinite, whether unoriginated or actually endless, is impossible, as has been elsewhere shewn.

And secondly, if each link or branch of the succession were produced, the whole, that is, all the branches, must have been produced; for what is the whole but the collection of all the parts?

945. Nor does it avail to say, that many things may be affirmed of each of the parts of which a whole consists, which cannot be affirmed of those parts considered in the aggregate and collectively. Thus the parts of which a whole consists, taken singly, may be invisible, or nearly so, and yet, taken collectively, they may be perfectly visible. The observation is certainly just with respect to properties that are susceptible of increase. The minute particles of bodies may be nearly invisible if taken separately, because they do not reflect a sufficient quantity of light; but when collected and joined together, they reflect more light, and therefore the aggregate is more visible; but where the properties are unsusceptible of incr

no alteration by their aggregation. Thus, as each man in any multitude of men was born and muſt die, the whole multitude was born and muſt die. Now production is a property of this ſort; each of the parts, of which the infinite ſeries is alleged to conſiſt, is allowed to have been produced, therefore the whole muſt have been produced. Where then could the neceſſity of its exiſtence reſide? No where; therefore it is a pure chimerical fiction.

SECT. III.

OF THE UNITY OF THE SUPREME BEING.

946. Firſt, we have no proof of the plurality of Gods, nor is there any reaſon to ſuppoſe it.

947. Secondly, if there were more than one God, there might be an infinity of gods, which ſeems abſurd; for to ſuppoſe even two beings exiſting independently of each other, that is, having ſeparate exiſtences, and yet both to exiſt neceſſarily, involves a contradiction; for if the exiſtence of each is independent of that of the other, and perfectly unconnected

connected with it, then the exiſtence of one of them ſeparately from that of the other, is perfectly conceivable and intelligible; therefore the non-exiſtence of the other may be ſuppoſed; therefore it is poſſible; (for what is impoſſible may be admitted in argument, but cannot be ſuppoſed, being unintelligible;) therefore its exiſtence is *not neceſſary*, which contradicts the ſuppoſition of its neceſſity.

948. Thirdly, to ſuppoſe two beings having exactly the ſame properties, ſo that it is impoſſible that one ſhould have what the other has not, is to ſuppoſe that they differ in no reſpect whatſoever; therefore there is no ground for their diſtinction, therefore they are in reality *not two, but one*.*

CHAPTER II.

OF THE DIVINE ATTRIBUTES.

949. The Divine attributes are ſuch properties and diſpoſitions as are inherent in his

* See Leibnitz.

nature,

nature, and necessarily inferable from it. They are either *absolute*, as they exist independently of the existence of any created being, such as omniscience, intelligence, wisdom, omnipotence, liberty, and immutability; or *relative*, requiring for their existence the existence of other beings. Of the former I shall treat in the first section, and of the lat- in the second.

950. We must remark, that we should attribute to the Supreme Being every power and disposition which we ourselves esteem laudable and advantageous, as they are all derived from him, and in him free from the imperfections that attend them in us, consequently both the manner and degree in which he possesses them is infinitely superior to that in which we possess them.

SECT. I.

OF THE ABSOLUTE ATTRIBUTES.

Omniscience.

951. *Omniscience* consists in the knowledge of all things possible. All these may be brought

brought into exiſtence, and therefore all muſt be known. An immenſe number of ſpiritual ſubſtances, of different characters, receiving ſimilar ſenſations and ideas, or at leaſt capable of receiving them, have already been brought into exiſtence, and many more are ſtill future, which are as well known to the Supreme Being as the preſent, and the paſt as the preſent.

952. Of the future events ſome are *neceſſary*, being reſults from pre-eſtabliſhed laws, but ſome are *contingent*, being the free determinations of the human will, and depending ſolely on the agent, who is their author; for theſe, rational beings are accountable, entitled to reward or liable to puniſhment.

953. The determinations of the will can alone be deemed free, for the events or actions ſubſequent to theſe volitions neceſſarily reſult from the laws which regulate the power which the will exerciſes over its ideas, and the ſenſations which conſtitute the human body.

954. The neglect of diſtinguiſhing the vo[illegible]ns from the ſubſequent actions has occa[illegible] [illegible] writing against the [illegible]

955. The difficulty of explaining how free volitions can be foreseen is such, that some philosophers have denied such foreknowledge, judging it incompatible with the freedom of determination; such volitions being perfectly unconnected with any thing on which foreknowledge may be grounded. Others, sensible, both from reason and revelation, that future actions are foreseen, deem the volitions, which are the occasional causes of these actions, to be themselves the necessary effects of antecedent causes, and as such may be foreseen.

Others, with whom I agree, allow the freedom of volitions, and deny its incompatibility with the foreknowledge of it by the Deity, though the mode in which this knowledge is acquired is inexplicable; for as it results from his essence, which is incomprehensible, it can bear no analogy to our mode of acquiring any knowledge, and therefore is necessarily unknown. All that can be required from those that acknowledge such prescience, is, to shew that it is neither incompatible with human liberty, nor impossible.

956. The truth of a proposition does not require the actual existence of its object.

That

That Alexander vanquished Darius is now true, though neither Alexander nor Darius now exist; in the same manner a proposition announcing a future object, does not require the actual existence of that object; all that its truth requires is, that the object should exist in some subsequent period. It is quite equal, whether the existence of the object be necessary or contingent; all that the verification of the proposition requires, is, that the object predicted should really happen. If it does, the prediction is necessarily true, though antecedently to its happening the object were contingent; thus a free volition may exist, though previously to its existence it were contingent, that is, the agent had the power of not producing it, as well as the power of producing it.

957. In the same manner, the foreknowledge of God is equally infallible, whether its object be necessary or contingent: all that its infallibility requires, is, that the object should *really* exist, as foreseen. Hence the truth of this foreknowledge, that is, its correspondence with the *real* existence of the object, is necessary, though the object itself, previous to its actual existence, be merely contingent. This

foreknowledge

foreknowledge does not in the least affect the contingency of the object, that is, the power of the agent to produce it or not produce it, (for it is perfectly extrinsic to it,) no more than our view of objects before us interferes with their existence; though we cannot reason from our actual sight to God's foresight; for an object actually seen necessarily exists, otherwise it could not be seen; but an object foreseen does not exist, and therefore its future existence, though certain, is not necessary, as the agent, previous to its existence, has the power of not producing it.

958. By attending to these principles we may extricate ourselves from that labyrinth of difficulties which many think insuperable; the most embarrassing of these are perhaps the following.

959. If a free agent has the power of abstaining from the commission of an action, which it is foreseen he will commit, he must have the power of deceiving the Divine prescience, for if he does abstain from that action he actually falsifies it; therefore, if he has the power of abstaining from it, he has the power of falsifying it.

960.

960. To this I anſwer, that the power of deceiving the Divine preſcience is not involved in the power of abſtaining from the action foreſeen, and therefore, though the agent ſhould really abſtain from it, he would undoubtedly falſify the Divine preſcience; yet his having the power of abſtaining from the action, is not equivalent to his having the power of falſifying the Divine foreknowledge; for when we ſuppoſe that the action will *really* happen, we cannot at the ſame time ſuppoſe, that it will not happen, for that would involve a contradiction, namely, that it would happen, and yet not happen; now what cannot even be ſuppoſed is impoſſible; and ſince the ſuppoſition of its being foreſeen, includes the ſuppoſition of its happening, the ſuppoſition of its not happening being contradictory thereto is inadmiſſible, and therefore the falſification of the Divine preſcience is impoſſible, though the agent has the power of abſtaining from the action; for it is ſuppoſed that he will not exerciſe that power.

916. Some have ſaid, that truth being a relation, it muſt, like every other relation,

have

have a determinate foundation; but future contingent objects afford no determinate foundation upon which a relation can be grounded, as they are totally unconnected with any cause whose connexion with them could afford a foundation for the truth of the propositions that announce them; therefore no proposition concerning them can be true.

962. But it is answered, that propositions announcing a future object require no foundation for their truth previous to the existence of their object; if the object exists at the time they predict its existence, that is sufficient to render them true; the foundation of their relation being no other than the *reality* of the future existence of their object, they are true before the object exists, because it will *infallibly* exist. Note, the propositions here mentioned are supposed to be singular, one of which must be true and the other false. For universal or particular propositions announcing a future contingent object may be false.

Of the Divine Intelligence and Wisdom.

963. *Intelligence* consists in the knowledge of

of all the poſſible arrangements of beings and their modifications.

964. *Wiſdom* conſiſts in the choice of the beſt poſſible arrangement, or at leaſt of one of the beſt arrangements. By *beſt*, I underſtand that moſt ſuited to the moſt approved deſign.

965. That we muſt aſcribe both theſe properties to the Supreme Being, is evident, from the contrivance and mechaniſm of the univerſe, as far as we are acquainted with it, upon paying any attention to its ſtructure; and the more minutely it is conſidered, the more proofs of theſe attributes are diſcovered. See Paley's Natural Theology throughout.

Of the Divine Omnipotence.

966. The power of the Supreme Being is evident, ſince he being the only ſelf-exiſtent Being, all other beings muſt have been created by him, all their powers derived from him, and regulated by his laws; and as his power relates to all *poſſible* things, we muſt deem it boundleſs, that is, infinite.

967. With reſpect to this power two important queſtions have occurred; Firſt, whether

ther the power of creation can be communicated by the Supreme Being to any other created being? and, secondly, whether the whole system of created beings be the most perfect, or one of the most perfect possible?

968. As to the first question, some think that a creative power may be bestowed on other beings, because they discern no repugnancy in the communication of such power.

969. Yet it appears to me, that this power is incommunicable to any creature; First, because it is the greatest that the Supreme Being himself possesses; namely, that another being should exist, merely because he wills it to exist; or that it should cease to exist, because he wills it should so cease. The connexion betwixt his will and the existence of another being is intelligible, because he is omnipotent; but the connexion betwixt the will of a being that is not omnipotent, and the existence of another being, is unintelligible; and if any connexion be established between them, as it may, the will of the created being is only the occasional, and not the efficient cause of the being he wills to exist. I say occasional, not *instrumental*, for creation is

not a mechanical operation that requires an inſtrument.

970. As well might the power of creating all beings, or omniſcience, be communicated, and thus a perfect equality with the Supreme Being in thoſe reſpects exiſt, which ſeems as impoſſible as the plurality of gods.

971. The ſecond queſtion, namely whether the preſent ſyſtem of created beings be one of the moſt perfect poſſible, is perhaps one of the moſt important that ever occupied the attention of mankind. If decided in the affirmative, its reſolution will afford a complete anſwer to the moſt perplexing difficulty that occurs in Natural Theology; namely, why evil is admitted into his creation, by a Being infinitely wiſe, infinitely good, and infinitely powerful; for if the preſent ſyſtem be the moſt perfect poſſible, or at leaſt one of the moſt perfect, then, ſince evil is evidently included in it, its admiſſion muſt contribute to its perfection, and therefore could not be excluded, without detracting from the perfection of the ſyſtem, and all that can be required is, that its quantity be the ſmalleſt compatible with the perfection of the ſyſtem.

972. But if this queſtion be decided in the negative, (as it is by many) then no ſatisfactory cauſe for the admiſſion of evil can be aſſigned: its exiſtence, and that of theſe attributes, cannot be reconciled, as Bayle ſeems to me to have proved beyond contradiction. The anſwers made to him, even by Leibnitz, appear unſatisfactory.* Its exiſtence is commonly ſaid to be a myſtery, but that it exiſts cannot be denied; it is therefore the exiſtence of the Divine attributes that in this hypotheſis is rendered myſterious, or rather impoſſible; for if theſe are irreconcilable to evident evils, they cannot exiſt together in the ſame ſyſtem.

973. Before we enter on the merits of this great queſtion, and demonſtrate the perfect agreement of theſe attributes with the exiſtence of evil, other queſtions ſtill more general, but leading to its ſolution, muſt firſt be examined. Firſt, why God has beſtowed exiſtence on any other beings?

* See Theodicea, N° 118, 119, 120, 121, 122. 133, 134. 161, 162. 236, 237. 266. Paley, 527. Doddridge's Lectures, p. 184.

Secondly, was he free to beſtow it, or not beſtow it, at his pleaſure?

Thirdly, did, or do, all poſſible beings poſſeſs the ſame characters?

Fourthly, ſhall all created beings be finally ſo happy as to prefer exiſtence to non-exiſtence?

974. In anſwer to the firſt queſtion, ſome* have aſſerted, that God acts without any motive, but merely becauſe ſuch is his pleaſure. Such conduct, however, rather befitting a fool, a tyrant, or a madman, it would be impious to aſcribe to the wiſeſt of all beings.

975. Others ſay, that God created the univerſe for his own glory; a motive infinitely too feeble to effect a being ſo far exalted above his creatures, of whatever rank they may be. A motive of that ſort may be uſeful to mankind, as it ſtimulates them to actions advantageous to ſociety, but is unworthy of a being ſo much ſuperior to all thoſe from whom he could receive it; and though it is commonly ſaid, that the world was made for the glory of God, yet as Abp. King juſtly remarks, this

* 1 Hook, Princip. Reb. Natur. 328.

is ſaid *humano more*, and is attributed to God as *anger*, *revenge*, *eyes*, and *hands*, are attributed to God.* Sooner, as Balgui remarks,† "might an angel propoſe to himſelf the homage of a worm; when we are required "to glorify him, it is partly becauſe it is right "and good in itſelf, and therefore morally "good; and partly becauſe it is eſſential to "our own happineſs."

976. Others endeavour to perſuade us that God created all beings for the manifeſtation of his own attributes; but this differs in nothing from the laſt-mentioned motive, for it is only from the manifeſtation of his attributes that glory can ariſe.

977. The only adequate motive that can be aſſigned for the creation of our ſyſtem, by a Being whoſe happineſs is perfectly independent of its exiſtence, is the communication of happineſs to all the creatures capable of receiving it. In effecting this moſt adorable purpoſe his power, his goodneſs, and his wiſdom, are diſplayed in the manner moſt worthy of his

* King on the Origin of Evil, p. 54. † Tracts, 221.

Supreme perfection.* This is not contradicted by revelation: the passage in Proverbs xvi. 4. is shewn by Dathius to be falsely translated; it should be *God procures all things for his adorers.*

978. In answer to the second question we must observe, that a being is free, who is impelled by no preponderating motive either to will or not will effecting a given action: such freedom the Supreme Being possessed when he willed the existence of other beings: his happiness being independent of their existence, could receive no addition from theirs; his goodness alone induced him to seek it: but this motive could not necessitate him to procure it, it being counterbalanced by the knowledge that his own could receive no increase from it; yet he cannot be said to have acted without a motive, as the happiness of his creatures was a sufficient though not a preponderating motive, and consequently could not detract from his freedom.

979. With respect to the third question, we may infer from daily experience, as well as from all history, that no two individuals of

‡ Smith's Moral Sentiments, Part III, chap. III. p. 237. Aquinas, 1 P. Quest. 44. Art. 4.

the

the human ſpecies have exactly the ſame mental temper, diſpoſition, and character, any more than exactly the ſame features and countenance: they differ from each other, and approach more or leſs to the perfectly virtuous or extremely vicious by infinite gradations. Theſe diſpoſitions are inherent in their nature, and form what is called the principle of their individuation; but they are not ſo eſſential as to be abſolutely unchangeable and unimproveable. All that exiſt are more or leſs amendable. Many characters are undoubtedly poſſible that are abſolutely incorrigible, but theſe I think are never brought into exiſtence, as they would neceſſarily be permanently unhappy.

980. It were vain to ſay that God might make all men or other beings equally perfect or equally corrigible; he undoubtedly may create an indefinite number of ſuch beings, but theſe would not compriſe all poſſible men or other beings; thoſe that are corrigible in various degrees would ſtill remain poſſible, quite diſtinct and different from the former; and with ſuch intelligent beings as theſe we actually find this globe peopled.

981. The fourth queſtion muſt in my opinion be anſwered in the affirmative, for it ſeems unworthy of the Supreme Being, and inconſiſtent with his goodneſs, juſtice, and wiſdom, to beſtow exiſtence on beings who are to be eternally miſerable, and to whom exiſtence muſt conſequently be eternally a curſe. It is indeed commonly ſaid, that they are themſelves the authors of their own miſery; but this does not leſſen the inconſiſtence of its never-ending duration with his paternal and infinite goodneſs, ſince their exiſtence was no way neceſſary, and it was foreſeen that it would terminate in endleſs miſery; nor with juſtice, ſince they could not obtain exiſtence upon thoſe terms, but if poſſible to be propoſed to them, would certainly refuſe it; nor with infinite wiſdom, ſince their miſery would be abſolutely uſeleſs, both to themſelves and to their Maker.

982. Hence it appears to me, that all intelligent beings brought into exiſtence, and having diſpoſitions more or leſs difficultly amendable, will finally be rendered more perfect; their moral diſpoſitions amended and brought into ſuch a ſtate of happineſs as

their

their refpective natures are capable of receiving.*

983. We now come to the folution of the principal queftion, namely, how it happens that evil is not excluded from his creation by a Being of infinite power, goodnefs, and wifdom; for, fuppofing this fyftem to be the *beft*, or one of the beft poffible, yet fuppofing this world to be peopled, as we find it to be, by free and imperfect intelligent agents, evil could by no poffibility be excluded from it. For if it were peopled only by beings that require no amendment (and other globes may poffibly be fo) then beings more imperfect fhould be fuppofed impoffible, which appears evidently unreafonable, as in this hypothefis numberlefs beings capable of happinefs would eternally be excluded from it.

984. To fhew the impoffibility of this exclufion more diftinctly, we muft ftate the different heads to which all are reducible. Thefe are evils of natural imperfection, called *metaphyfical* evils, *phyfical* evils, and *moral* evils.

985. *Evils of imperfection* are effentially inherent in all creatures; for not being capable

* See Hartley on Man, Part II. chap. iv. fec. 5.

of

of infinite perfection, they must always remain imperfect, relatively to superior degrees of it; the degrees of imperfection must be various; all corrigible beings must belong to this class.

986. *Physical evils* are all reducible to *pain*, whether of body or of mind. Such intelligent beings as inhabit this globe being all supposed corrigible, must be more or less imperfect, otherwise they would require no amendment; now the principal means of their improvement is the endurance of pain, whether corporeal or merely mental; a being who supports it with resignation, from a consciousness of his duty so to do; who suppresses the impatience, vexation, and frequently the anger, indignation, grief, dejection or despair, it tends to excite, necessarily becomes an object of approbation in a higher degree than he could be previous to such discipline, or in other words acquires a higher degree of perfection. Thus the endurance of pain is a necessary ingredient in the practice of virtue, and the practice of virtue being the path of amendment, hence the necessity of pain.*

* Stewart's Outlines, sec. 277. 284.

987. As the patient endurance of *pain* in the performance of duty, is the eſſence of moral perfection, ſo its avoidance, when its endurance is a duty, or the inordinate acquiſition of its oppoſite *pleaſure*, forms the eſſence of moral imperfection or turpitude; to abſtain from this, when ſtrongly coveted and ſuch reſtraint is a duty, muſt be conſidered as a grievous pain.

988. To avoid the pain of reflexion, the generality of mankind neglect inquiring into the duty they owe to the Supreme Being; they reſt ſatisfied with their parental and national inſtitutions: hence the criminality of polytheiſm, idolatry, and ſuperſtition, is derived.

989. In the diſtribution of pain, whether of body or mind, we generally diſcover traces of the moſt profound wiſdom; it is the almoſt inevitable conſequence of intemperance; and, whatever outward appearances may ſuggeſt, the inexorable attendant of crimes and vices, and frequently of folly. Its manifeſtation ſerves alſo to deter others from ſimilar miſconduct.

990. To the doctrine here advanced many

objections have been made; First, it has been ſaid, that the infliction of pain frequently fails of effecting that amendment, for the production of which we have ſaid it was deſigned. This cannot be denied, as far as relates to the preſent ſtate of our exiſtence; but ſince our duration is not limitted to the preſent ſtate, ſince we ſee that in this ſtate amelioration of temper and character frequently reſults from the diſcipline of pain, have we not reaſon to think, that its infliction continued in the next life, and probably increaſed, will at laſt be attended with its proper effect, and make even the moſt obdurate ſenſible, that the abandonment of vice, and the practice of virtue, can alone procure and eſtabliſh their happineſs. Nor ought we to ſuppoſe that if this doctrine were true it would have been revealed, for its revelation would infallibly lead many to defer their reformation to a future period of whoſe miſery they can form no idea, and thus be productive of miſchief: mankind at the different periods in which revelations were communicated, was not ſufficiently enlightened to receive truth in its full extent.

991. Again, we are told, that brute ani-

mals, though incapable of any moral action, and consequently of any change, amendment, or moral reformation, are nevertheless subjected to pain; consequently moral reformation cannot be the purpose of its infliction, nor afford a reason for its existence.

992. This train of reasoning is grounded on the supposed certainty, that these animals really suffer pain, and are capable of perception and passions; in attributing perception to them, we argue solely from analogy in contradiction to the most evident principles; but I appeal to every impartial mind, whether this analogy be not by far too feeble to support a conclusion attended with inextricable difficulties: does it not argue the most extravagant presumption to assert, that the Divine omnipotence cannot form machines capable of performing all those actions from which we conclude them to possess intelligence? I say intelligence, for if we allow them perception, we must allow them abstract notions and reasoning to a certain degree;* and if such machines be possible, why should we not conclude them to exist, rather than contradict the

* Cooper's Tracts, p. 233, &c. Norgate's Essays, p. 28.

primary

primary maxim of natural religion, that *under a just God it is impoſſible an innocent being ſhould ſuffer without any reaſon or compenſation*, which muſt be the caſe of brutes, to which we deny a future life, and thus furniſh materialiſts with their ſtrongeſt argument? The ſame analogy that leads us to attribute perception to the more perfect animals, whoſe ſtructure moſt reſembles our own, would equally lead us to attribute it to inſects, whoſe internal ſtructure differs moſt from our own, and even to microſcopic animalculæ; nay, it has induced many to attribute it to vegetables: thus alſo the motions of the planets were antiently attributed to preſiding ſpirits, and thus moſt probably idolatry originated; thus, while attending to mere ſenſible appearances, other intellectual and much ſtronger principles of reaſon are neglected or rejected: no ſort of folly is too groſs to be credited.

993. Laſtly, if it be true, that the puniſhment to be inflicted in the next life for crimes committed in this, are never to end, it is evident that pain is not admitted into our ſyſtem merely for the purpoſe of correction and amelioration, but principally for the purpoſe of

producing

producing endlefs mifery. A purpofe fo repugnant to infinite goodnefs, as the production of infinite mifery, and to infinite wifdom, as the infliction of mifery which muft be ufelefs, (fince it is fuppofed to work no reformation in thofe who fuffer it, and cannot by its example tend to reform others, fince it is invifible;) and to infinite juftice, fince it is fuppofed inflicted on thofe who could not have the choice of receiving exiftence with the chance of being expofed to it, cannot furely be credited; and in effect the conduct of thofe who pretend to believe it, evidently fhews they do not in reality credit it. " Juftice confifts in " the conftant and immutable will to dif-" penfe to every one that which beft cor-" refponds with his moral ftate; its exercife " will therefore be varied with the diverfified " fituations in which its objects are placed, " and the different characters they bear; the " evils of the prefent life are univerfally al-" lowed to be intended for correction and " amelioration; if the object of future " punifhments be different from this, if they " have no other end but the mifery of the " finner, all analogy is loft, the nature of

" man muſt be changed, and he muſt be-
" come for ever incapable of repentance and
" amendment; and who renders him ſo?
" God; God proved to be infinitely good,
" yet good only for a moment, but eter-
" nally implacable; it is ſovereignly impro-
" bable, that the mere circumſtance of time
" ſhould be attended with ſuch a revolution
" in the character of man or the conduct
" of God."* It is impoſſible that God ſhould
be *infinitely* implacable, and only *finitely* mer-
ciful, when his mercy is expreſsly declared to
be above all his works, Pſalm cxliv. 9.

994. But it is ſaid, that the enormity of
every offence increaſes with the dignity of the
perſon offended: as ſin is an offence againſt
the infinite majeſty of God, its malignity muſt
be infinite, and therefore deſerves infinite pu-
niſhment. This argument is in every reſpect
fallacious, being grounded only on what takes
place in human offences; among men, the
higher the dignity of the perſon offended
above the offender, the more he is hurt, and
the keener the reſentment he feels, or at leaſt
others feel for him; for if he is magnanimous,

* See Petitpierre, in the Analytic Review for Oct. 1788.

he

he will feel no other sentiment but indifference or contempt; but the Supreme Being is incapable of being hurt by any offence, and can possibly feel no resentment, as this is essentially a painful sensation.* Besides, the greatest offenders scarce ever think of God, while committing their crimes, and have no direct intention of offending him. Moreover, if this reasoning were just, even the most trifling transgressions would deserve infinite punishment, which is too absurd to be credited.

995. Nor is revelation so favourable to the opposite doctrine as at first sight it would appear to be; *eternal* punishments are indeed denounced, but the word eternal does not always in the Scriptures signify *endless*, but frequently an indefinite duration. See Wakefield's Notes on Matthew, p. 358. And Burnet de Statu Mort. and Resurg. 246. It is applied to things which we are expressly told will have an end. Thus the kingdom of Christ will, it is said, be *eternal*, Dan. vii. 13, 14; and yet we are expressly informed, 1 Corinth. xv. 24. that it shall have an end.

* Leib. sec. 114.

But it is asserted that since in Matth. xxv. 46, the word *eternal* denotes the endless happiness of the just, it must in the same sentence be taken in the same sense, when applied to the punishment of the wicked. Yet this is not a necessary consequence, for, to say nothing of the reasons for taking it in a different sense, in the sentence of condemnation, nothing is more common in the Scriptures than employing the same word in different senses in the same sentence; this licence is by grammarians called *antaclasis*, or *refraction*, and many examples of it are given by Glassius, p. 959. Grotius mentions it, 1 Corinth. viii. 3. Quintilian explains it, Instit. Orat. ix. 3. And on the contrary we are told, Psalm cii. 9. that God keepeth not his anger for ever, and that in judgment he remembereth mercy. In Daniel ii. 44. we have a perfect antaclasis, for in the preceding verses, *kingdom* denotes an earthly kingdom, but in the 44th a *spiritual*.

996. *The origin of moral evil* is clearly deducible from the free agency of man; considering him as a perfectible being, deriving improvement from his own exertions, he must have the power while acting conformably to

the

the ſuggeſtions of his duty, to act alſo in contradiction to them; if either alternative were equally eaſy, no difficulty could be overcome; conſequently no virtue practiſed, and no merit acquired; hence the preſent ſtate of man, in which he is ſolicited by various allurements to deviate from his duty, or obliged to ſtruggle with various difficulties in its performance, was abſolutely neceſſary for his advancement in perfection and amendment of character. Now wilful deviation from a known duty, conſtitutes the very eſſence of moral evil; the poſſibility then of ſuch evil, or rather liability to it, was preordained, but not its actual exiſtence; this is barely permitted, as the indubitable conſequence of freedom of action; for in any ſtate in which imperfect, but amendable beings could be placed, amendable by overcoming difficulties in the acquiſition of rectitude, deviations from it muſt be expected, and therefore permitted; all that Supreme wiſdom can effect, is to place ſuch beings in that ſtate, in which, freedom being ſtill preſerved, the ſum of the reſulting evils is ſmalleſt, the quantity of moral improvement greateſt, and in which, as far as poſſible, evil

is made to contribute to the production of good. Now that this is the case in our system, we have reason to presume, and can even in many instances prove: hence we cannot say as some have unwisely said, that *whatever is, is right*; on the contrary *much of what is, is wrong*; but we may well say, that the *permission of whatever is, is right*: evil is indeed rendered productive of good, and one evil frequently serves to correct another, or even to prevent a greater; but it is still evil, for it would be still better if men would so use their liberty, as that no evil at all should exist.

A succinct, but beautiful view of the reasons why evil is admitted is given by Hook, in his Principia Religionis Naturalis, vol. I. p. 292, which I shall here annex.

" Sed sunt etiam mala; at qualia? Quæ
" non in ipsa rerum machinatione destinata
" videntur tanquam ipsius finis proprius:
" verùm ex materiæ imbecillitate, inferio-
" rum agentium errore, eveniunt juxta eas
" leges, quæ omninò sunt utiles, & neces-
" sariæ. Mala sunt; sed sine quibus nullæ
" essent leges generales; quæ leges tamen

" necessariæ sunt, ut locus sit consilio, pru-
" dentiæ & industriæ, ut homines rationes
" suas possint instituere & ex certis actionibus
" certos sibi polliceri effectus & consequen-
" tias. Mala sunt; at sine quibus abessent
" commiseratio, beneficentia, liberalitas, for-
" titudo, æquanimitas, patientia, lenitas, &
" officia omnia gratuita, quorum sensus longè
" est omnium lætissimus & memoria jucun-
" dissima. Quis omnem sublatum vellet dò-
" lorem quo de pravo corporis habitu admon-
" emur, aut laborem, ad sanitatem & vires
" corporis animique tam necessarium? Quis
" contra naturæ studia tantùm obduruit, ut
" illos sensus nostros, licet molestiam quan-
" doque ferant, vituperet, quibus aliorum in-
" fortunia deploramus, quibusque ad opem
" ærumnosis ferendam incitamur; aut illum
" animi morsum sive angorem, quo elidimur
" ex criminum nostrorum aut culparum con-
" scientia; & quem vitiorum medicinam esse
" voluit benignus Deus? Mala sunt; sed non
" totum rerum ordinem cogitatione com-
" plectitur humana mens. Exigua est hæc
" mundi pars, quan cernimus, & pro brevi
" temporis spatio; si plurima ergo in hoc

" ævo mala magnas afferre videamus utili-
" tates, scill quod hominum scelera sæpis-
" sismè cohibeant & impediant, proborum
" virtutes exerceant & augeant; hominum
" mentes à rebus externis & vilioribus volup-
" tatibus ad interna & vera bona convertant;
" hinc certé fit verisimillimum, ea etiam
" mala (siqua sint) quorum nullum nunc cer-
" nimus usum, ad totius systematis in par-
" tibus à nobis remotioribus aut seculorum
" futurorum felicitatem & perfectionem fu-
" isse destinata: ex üs certe neutiquam ef-
" ficitur mundí administrationem esse invi-
" dam aut malignam."

Of the Divine Liberty.

997. *Freedom from constraint* being the natural consequence of perfect independence must naturally belong to the Supreme Being; so also must freedom, from a necessity arising from his own nature, if his happiness be complete, independently of any exertion of his power; and this we must judge it to be, otherwise the existence of created beings would be as necessary as his own, and equally eternal,

eternal; as in that caſe the exigency of his nature would eternally require their exiſtence. Now the ſuppoſition of their eternal exiſtence evidently involves an impoſſibilty; for creation being the production of a being from nothing, an inſtant muſt be ſuppoſed in which it did not exiſt, therefore it cannot be ſaid to have had no commencement, nor conſequently to have been eternal.

998. It may be objected, that the determination to create being eternal, it cannot be ſaid to have ever been free, as no inſtant can be imagined in which it did not exiſt; but it is anſwered, by allowing that the objection clearly diſproves the pre-exiſtence of freedom as a *ſtate* preceding election, but not its exiſtence as a *mode* eternally accompanying election and inherent therein: in this reſpect Divine liberty differs from human; for among men, freedom and frequently ſuſpenſe precede a free determination, but do not accompany it.

Of the Divine Immutability.

. The immutability of the

Being

Being consists, first, in the impossibility of his receiving or effecting any change in his essence; secondly, in the *certainty* that his designs, though not unalterable, will nevertheless be never altered: it is grounded on the extreme perfection and independence of his nature, and on the excellence of the choice he has already made. His decrees, however, as far as they are still executory, having been freely passed, are still free; for no past instant is assignable in which they were necessary, and consequently they are still alterable, though it is certain they will never be altered; just as future contingent events will certainly happen, though it be always possible, antecedently to their happening, that they will not happen, otherwise they would not be contingent, but necessary.

1000. Though men may be at one time objects of Divine favour, and at another time of punishment, this argues no change in the Divine decrees, as these decrees relating to different times eternally co-existed.

1001. Hence prayers are not useless; for if their object be compatible with a superior advantage to that which they demand, we may expect

expect from the Divine benignity that regard was had to them in the decree for the original arrangement of all events.

SECT. II.

OF THE MORAL ATTRIBUTES OF THE SUPREME BEING.

1002. Under this name we comprehend the dispositions of the Supreme Being towards his creatures: chiefly his goodness and justice.

1003. These attributes are such dispositions as we find and approve of in ourselves, removing from them all that springs from the imperfection of our nature, and extending them to the degree suited to his nature; that is, to infinity.

1004. *Divine goodness*, simply considered, consists in the disposition, or the actual communication of happiness; or, if the nature of the creatures require it, in affording them the means of acquiring it.

1005. To seek for proofs that this disposition exists in God, is perfectly idle, as not a single

single pleasing sensation or sentiment can exist in our minds which we do not entirely owe to his benificence; it is only through the laws he has gratuitously established, that we can obtain any; of ourselves we can procure none. Why evil of any kind was permitted to exist, we have already shewn, N° 979, 980. 983, &c.

1006. It is said, that human life is attended with far more pain than pleasure: if it were so, I would not think such a state inexplicable, on the grounds already mentioned. A state of absolute happiness is incompatible with a state of probation: but I am inclined to think, that if all our moderate pleasures were balanced with the *inevitable* pains or uneasiness we endure, they would be found to outweigh them.

1007. Much of our uneasiness proceeds from comparisons with those whom we ignorantly suppose in a happier state; whereas a perfect compensation, both in pain and pleasure, in the different ranks of human life, generally takes place; and of those whom we suppose happier than ourselves, many are far more miserable. See Jenyns on Evil, p. 24. Paley's

Natural

Natural Theology, Chap. 26. Stew. Outlines, 287.

1008. As *love* consists in willing the happiness of the person loved, we must infer that God loves his creatures in the full and exact sense of the word.

1009. *Hatred* cannot exist in God, for it implies a pleasure in the suffering of the person hated; a pleasure inconsistent with the divine perfection, and with the love which God bears to his creatures: consequently *anger, revenge*, and other passions of the malignant kind, are ascribed to God only metaphorically; as his punishments, though in reality designed for the good of the sufferers, like parental chastisements, bear some resemblance to the effects those passions tend to produce.

1010. Even *pity*, or *compassion*, well defined by Dr. Cogan a benevolent sorrow at the sufferings of another, cannot exactly exist in the Divine mind, but merely analogically, including all that it implies of amiability, and excluding only every degree of pain.

1011. *Mercy*, as Dr. Cogan well remarks, is the most exalted branch of compassion; it particularly refers to that state of mind which

induces

induces us to exerciſe our benevolence upon perſons whoſe fate is at our diſpoſal; it induces us to relinquiſh demands which, if enforced to the utmoſt, would render us the immediate agents of miſery: it is peculiarly applicable to unworthy or criminal behaviour to ourſelves, which would involve the offender in diſtreſs, were we to be tenacious of our rights; in a word, it is that dignified compaſſion, which induces us to ſuppreſs reſentment, to pardon offences, or mitigate puniſhment as far as diſcretion may admit. The high approbation which we feel of this diſpoſition, induces us to aſcribe it to the Supreme Being, though he is incapable of reſentment, and of receiving any offence. In him it conſiſts in placing the trangreſſor in circumſtances favourable to his amendment, inſpiring him with ſentiments fitted to promote it, and inflicting the puniſhment moſt likely to effect it, or omitting any for a certain time.

1012. Hence *forgiveneſs*, in the proper ſenſe of the word (which is a pardon or remittance of the puniſhment due to offences), cannot be attributed to God; but, as he acts in the ſame manner as men o when they pardon offences,

it is by analogy aſcribed to him; for language being formed to expreſs human ſentiments, the ſame terms are neceſſarily employed where the effects are ſimilar to thoſe which thoſe ſentiments exact or produce. By *repentance* men place themſelves in a new ſituation, and do not require thoſe puniſhments which their amendment would otherwiſe call for; yet they may ſtill be ſubjected to pain, as a means of improvement in virtue and advancement in perfection.

Divine Juſtice.

1013. Of *juſtice* in general a definition has been given, N° 909; of its various branches, the remunerative, preventive, and corrective are neceſſarily attributed to the Supreme Being; for as they imply no imperfection, and their exerciſe, even by earthly ſovereigns, meets our higheſt approbation, we muſt conclude, that the Sovereign of the univerſe, the moſt perfect of all Beings, exerciſes them in the moſt perfect manner; and in fact juſtice is nothing more than goodneſs, under the direction of wiſdom.

1014. Hence, even in this life, for the encouragement

couragement of virtue, and the difcouragement of vice, each virtue meets with it proper reward, and each vice with its proper punifhment; thus temperance is rewarded by health; juftice by confidence, credit and efteem; humanity, liberality, and generofity with love, regard, and frequently with ample recompence: and, on the contrary, fraud, falfehood, and brutality, meet with fcorn and abhorrence; the more atrocious crimes fcarce ever efcape legal penalties.

1015. Even delinquencies of a nature to evade human laws, or committed by thofe who are above their reach, never fail of receiving an adequate requital, though not always vifibly, in mental anguifh, and the horrors of remorfe; the fufferings of many have been fo dreadful as to compel them to end them with their lives; they are well depicted by Tiberius, in his letter to the Roman fenate, and were evidently experienced by thofe moral monfters Nero, Domitian, Elizabeth, Cromwell, Philip the IIId. and many more.

1016. But *vindictive juftice* cannot with propriety be afcribed to the Supreme Being: it proceeds from refentment, and confifts in the

the malignant ſatisfaction of retaliating on the offender the pain he has given to the offended. Now of reſentment, or feeling any pain, God is totally incapable; conſequently the ſentiments which men feel on ſuch occaſions, and the moral fitneſs of puniſhment for the gratification of reſentment, exiſts only with reſpect to them, but cannot with any appearance of reaſon be deemed to take place with reſpect to a Being who is incapable of being either offended or injured, in the proper ſenſe of thoſe words, as all muſt confeſs.

1017. Nor can ſuch puniſhment be requiſite, as ſome pretend, for the purpoſe of government, ſince puniſhment in that preciſe view is at preſent inviſible; as far as it is viſible, it is with much more propriety attributable to the purpoſes of correction, diſcipline, or example.

1018. *Vivacity* in his revelations, and *fidelity* in performing his promiſes, may be conſidered as branches of juſtice, and meet with our higheſt approbation; they are therefore neceſſarily aſcribed to the Supreme Being. But fidelity in executing his menaces, where their

execution can with propriety be difpenfed with, is incompatible with his mercy.

CHAPTER III.

OF DIVINE PROVIDENCE.

1019. By providence I underftand the original arrangement of events, partly ordained and partly permitted, by the Supreme Being, for the purpofe of producing the greateft poffible quantity of moral and phyfical good.

1020. This arrangement is maintained and effected by the immediate agency of the Supreme Being himfelf, either fingly or in coöperation with the powers he has granted to free agents.

1021. This agency is carried on by general laws, which univerfally take place; fuch as thofe of gravitation, cohefion, elafticity percuffion, &c.: independently of the certainty of their efficiency, arifing from their conftancy, men would not know how to act, on any occafion; no arts or fciences could exift. The conftancy of the effects produced is therefore

fore a full proof of the existence of those laws, even where the detail of their operation cannot be exactly traced; in consequence of these, we find the same inclinations, passions, and intelligence, though with much variation of degree, in far the greater part of the human species, when placed in similar circumstances; and the same modes of action in animals and vegetables, varied and modified by the peculiarities of their different species.

1022. As prayer often apparently tends to obstruct or counteract the operation of these laws, theologians have been much embarrassed in endeavouring to reconcile its efficacy with their immutability. Some have supposed the interference of unembodied spirits;* a scheme evidently too wild and romantic to gain any credit: others have imagined the interference of secret influences on the minds of men, on particular occasions, which induce them to alter the line of conduct they would otherwise follow;† and even grant, contrary to the experience of mankind, that even the

* 5 Search, 124. Price, Differt. 80.
† Ibid, 13. 15. 63. 77.

efficacy of natural causes may be altered or suspended by prayer.* The only argument which the ablest assertor of those influences adduces, is, that we are ignorant of the manner in which ideas arise in our minds, and of the causes on which the succession of them depends, yet both depend on general laws, particularly on those of association, well explained by Hume, and Mr. Dugald Stewart, p. 278, in 8vo. See also ante, chap. v. sec. 4.

1023. The existence of such occasional influences, of which we are not conscious, seem to me for that reason purely fictitious and being contrary to the common course of nature, did they exist, must be thought miraculous. If any one could succeed in proving the existence of such influences, certainly it was that most discerning of all metaphysicians, Bishop Berkeley, who attempts to account for that particular influence called *grace*. He contends, that as we allow the existence of *force*, though we cannot form any idea of it, we should not deny the existence of grace, though we can form no idea of it But in this case he was evidently biassed by

* 5 Search, 207. 219.

the

the prejudices of his profession. The late excellent Dr. Priestley, much freer from all prejudice (though unfortunately still retaining a Calvinistic feature, as appears by his Essay on Necessity) has clearly shewn, in his sermon on Divine Influence, that it has no foundation in the Holy Scripture; and that the doctrine that admits it is pregnant with much mischief.

1024. Besides, though we have no idea of force, yet we have a notion of it, for it means no more than the degree in which power is applied. Berkeley, in this particular point, is well refuted, even by a much inferior metaphysician, Lord Bolingbroke. He thinks, and not very improperly, that "the word "*force* serves as a sign of the unknown causes "of the phænomena both of nature and of "art. When we employ the word alone, "it is of very vague signification, and imports nothing but some determining power, "either intellectual or corporeal." (Essay I. p. 173. 8vo.) "The possibility of believing "force is nothing more than the possibility "of believing, that every effect has a cause, "though that cause be unknown to us; the

disparity

" disparity and impropriety of comparing it
" with grace do not arise from our having no
" idea of grace, for we have none of force;
" but they arise from hence, that there is not
" the same possibility of believing the exist-
" ence of a cause, whereof we have no idea,
" and which cannot be ascertained by its ef-
" fects, as there is of believing one whereof
" we have no idea indeed, but whose exist-
" ence may be ascertained by its effects."

1025. The efficacy of prayer, to which both reason and revelation oblige us to have recourse, may in my opinion be easily explained in the following manner.

1026. We must suppose the whole course of events, from the origin of things to their final determination, to be connected with and depend on the operation of the set of occasional causes that were first put in action, and their operation to be so conducted as to produce that series of subsequent events that were and are either ordained or permitted and effected, in consequence of the choice of the human will; and that these events were originally so planned, as to harmonize with the prayers of the

the faithful, if their requests were consistent with the greater good of the whole.

1072. This will appear more plainly, in explaining the difficulties proposed by Dr. Fiddes: "if (says he) one should pray to be "delivered from some infectious distemper, "the vapour whereby it is propagated will "nevertheless follow its natural course." True, but the preceding series of causes productive of its natural course, may, from regard to the foreseen prayer, be different from what they otherwise might be; and consequently the course of the vapour, though still natural, may be such as to coincide with the request of the prayer.

1082. Again he adds, "should a man in "the heat of battle pray for protection from "the instruments of death, which fly every "where about him, yet a ball from a cannon "or musket, will necessarily pursue the line "of its direction; it depends however on "the choice of man, whether he will give it "such particular direction, as by its natural "tendency will take away the life of the per- "son who deprecates the danger, and in this

"case (he thinks) it is impossible, upon any
"foresight of his prayer, that the order of
"causes, that are in themselves arbitrary, and
"of uncertain determination, should be dis-
"posed in such a manner as should certainly
"produce the effect desired of them."

But this is a mistake; arbitrary causes are not of *uncertain* determination; what their future determination will be, is foreseen with certainty; see N° 955, &c.: and from the foreknowledge of the prayer, the original arrangement may be that in which a different determination of the direction of the bullet, or a different position of the person praying from the line of its direction, may take place.

1029. But it is said, we should never pray for miracles; thus we never pray for the restoration of a dead man to life. Now, the abatement of a storm, or the recovery of a sick person, are as truly miraculous as the restoration of a dead man to life, therefore prayers for such events are equally fruitless. This is a fallacious argument; for no natural cause can effect restoration to life; whereas many can effect an abatement of a storm,

ſtorm, or the recovery of a ſick man. The firſt would be miraculous, the latter not, unleſs inſtantaneous, as thoſe recorded in our ſacred books.

1030. Particular interpoſitions of the Supreme Being, by deviations from the eſtabliſhed courſe of nature, frequently occur in the books of the Old and New Teſtament; but all were viſible, all tended to effect purpoſes which could not be well anſwered without them.

1031. That famine, peſtilence, and earthquakes, are ordered for the puniſhment of cities or countries, ſeems to me a great miſtake, and evidently refuted Luke xiii. 1, 2: ſuch events commonly ariſe from natural cauſes, and have very rarely been miraculous; as the deluge, and poſſibly the deſtruction of Sodom and Gomorrah. The deſtruction of Jeruſalem was in no reſpect miraculous.

1032. The conduct of Providence, with reſpect to individuals, and in reſpect to ſtates is very different. It frequently allows the moſt undeſerving individuals to enjoy, at leaſt apparently, the moſt enviable proſperity, for their exiſtence is not confined to thi

may meet with due puniſhment in the next; but it is otherwiſe of ſtates, for as they do not ſurvive this life, they meet with the reward of their virtues, and the puniſhments of their vices, or crimes, in the preſent ſtate of their exiſtence. Evident traces of theſe diſpenſations of providence occur in the hiſtories of Perſia, Greece, Rome, &c.

END OF VOL. I.